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I. INTRODUCTION

The Settlement Agreement is broadly supported by parties representing a universal range of interests, including Commission Staff, residential customers through RUCO, merchant generator representatives, large commercial and industrial customers, public schools, federal agencies, low income advocates, union workers, retirees, and all five separate groups representing solar interests. The Agreement includes a tremendous amount of customer benefits, and will also allow Arizona Public Service Company to continue providing high quality service and reliability during a three year rate case stayout. This outcome resulted from many hours of intense, transparent, and robust negotiations between more than 40 parties with divergent interests. Ultimately, 29 diverse parties signed the Agreement (Signing Parties), each determining that the Agreement, taken as a whole, is in the public interest. As AURA witness Patrick Quinn stated, "[t]he fact that so many parties representing such varied interests were able to come together to reach consensus illustrates the balance, moderation, and compromise of the document." Even parties that did not sign the Agreement agreed that many aspects of the Agreement are in the public interest.

The timing of the Settlement itself is in the public interest. There is little question that the electric utility industry is facing significant changes. Our society has begun to develop a multitude of distributed technologies that are changing how customers use, create, and even think of electricity. The regulatory framework must similarly change, and it is far better to begin that change collaboratively through negotiations, rather than in the binary, win/lose trap of litigation.

The Agreement reflects this needed collaboration, and offers creative solutions for initiating much needed regulatory change. The Agreement does so comprehensively

¹ See Settlement Agreement at 4 and Exhibit B.

² See Quinn Settlement Direct Testimony at 3.

³ See Tr. 1164:9-17 (Schlegel), see also Coffman Direct Settlement Testimony at 3.

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See generally Settlement Agreement.

⁵ See Yaquinto Settlement Direct Testimony at 2-3.

⁶ See Tr. 1093:1-4 (Tenney).

Value of Solar Challenges Withdrawn. Agreement by Signing Parties to withdraw any appeals of the Commission's Value and Cost of Solar Decisions (Decision Nos. 75859 and 75932).⁴

Several of these benefits could not have or are unlikely to have resulted from litigation. Indeed, several of the Agreement's provisions required significant concessions that APS would have been unwilling to make outside of the settlement context and that could not be imposed upon APS absent its agreement. AIC witness Gary Yaquinto noted that "the Settlement Agreement was reached through a give-and-take consensus process, AIC believes that the outcome is balanced and produces a more efficient resolution compared to one accomplished through a fully litigated proceeding." RUCO witness David Tenney testified that one reason why RUCO chose to support the Settlement in this case was "because fully litigated cases may have very likely resulted in worse conditions for consumers in certain areas." Instead, differing perspectives were recognized through the months-long negotiations and parties worked collaboratively to develop creative solutions outlined in the Agreement.

The primary questions for the Commission are whether the rates set in the Agreement are fair, just, and reasonable for the service being provided; and whether the Agreement serves the public interest. The evidence presented in this case demonstrates that the answer to these questions is undeniably "yes." The Agreement has broadranging customer benefits and enables APS to continue to provide safe and reliable electric service while pursuing Arizona's energy goals. APS requests that the Agreement be approved in its entirety without change.

PART 1: SETTLEMENT AGREEMENT IS IN THE PUBLIC INTEREST

II. THE SETTLEMENT IS IN THE PUBLIC INTEREST AND SHOULD BE APPROVED.

All of the parties worked tirelessly and dedicated months of time and effort to produce a balanced agreement with numerous customer benefits and sufficient financial support for the Company. Under the Arizona Constitution, Article 15 Section 3, the Commission has the duty to set just and reasonable rates "for the convenience, comfort, and safety, and preservation of the health, of the employees and patrons" of regulated utilities. The Arizona Supreme Court has described this duty as the regulatory body's charge to require "public utilities be operated in the public interest." Arizona law provides that "a rate should allow the company whose property is committed to public service to earn a 'fair and reasonable reward' while also being reasonable from the standpoint of the public interest." The public interest analysis is best viewed as a balancing test, and the Commission's role is to weigh the need for a rate increase with the mitigations and identified customer benefits. RUCO witness Tenney acknowledged that "this Agreement satisfies the public interest . . . in that its benefits to the ratepayers outweigh the costs."

A. The Agreement is supported by many diverse stakeholders.

ConservAmerica witness Paul Walker stated that "[a] good test of the public interest is whether parties with divergent interests support the outcome." This Settlement easily meets that standard. The Agreement is broadly supported by 29 parties representing a universal range of interests, including Commission Staff, 11 RUCO on

⁷ See So. Pac. Co. v. Ariz. Corp. Comm'n, 98 Ariz. 339, 342 (1965).

⁸ See City of Tucson v. Citizens Utilities Water Co., 17 Ariz.App 477, 480 (1972).

⁹ See Tenney Settlement Direct Testimony at 5.

¹⁰ See Walker Settlement Direct Testimony at 2.

¹¹ Tr. 1262:21-23 (Abinah).

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27 28 Tr. 1038:12-13 (Smith).

²⁴ Tr. 39:8-15 (Energy Freedom Coalition of America Opening Statement).

²⁵ Tr. 1096:20-24 (Tenney).

behalf of residential customers, 12 representatives of merchant generators, 13 large commercial and industrial customers, 14 public schools, 15 federal agencies, 16 limited income advocates, ¹⁷ union workers, ¹⁸ utility shareholders, ¹⁹ retirees, ²⁰ environment and conservation advocates,²¹ and all five separate groups representing solar interests.²² As Staff witness Ralph Smith testified, "virtually every perspective has been represented to some extent."23 Although the Signing Parties all had various interests and areas of concern, they all found the Agreement, taken as a whole, to be in the public interest.

This Agreement is noteworthy in that it has broad support by many different parties, including those that have historically chosen to litigate issues rather than compromise.24 RUCO witness Tenney testified that "[t]he fact that the [C]ompany and the solar partners, for example, were able to reach an agreement on issues such as litigation of value of solar, ballot propositions, those things, to me, that's a seminal moment and it is good for the people of Arizona."²⁵

¹² Tr. 1088:15-19 (Tenney); see also Quinn Settlement Direct Testimony at 6.

¹³ Tr. 76:24-77:14 (Arizona Competitive Power Alliance Opening Statement).

¹⁴ See Higgins Settlement Direct Testimony at 2, Hendrix Settlement Direct Testimony at 2; see also Tr. 44:23-45:24 (Kroger Opening Statement).

¹⁵ Tr. 37:2-13 (Arizona School Board Association and the Arizona Association of School Business Officials Opening Statement).

See Alderson Settlement Direct Testimony at 2 ("FEA is a signatory to this Agreement because we believe it is a reasonable compromise to many complex issues in this rate case.").

See Zwick Settlement Direct Testimony at 3. ¹⁸ See Vandever Settlement Direct Testimony at 3.

See Yaquinto Settlement Direct Testimony at 2 ("AIC supports the Settlement Agreement because it contains provisions that represent a reasonable compromise of the various parties' positions and that reasonably benefit APS, its customers, and its shareholders.").

²⁰ Tr. 59:17-21 (Sun City Homeowners Association Opening Statement); Tr. 60:21-61:5 (PORA of Sun City West Opening Statement). ²¹ Tr. 36:23-25 (Western Resource Advocates Opening Statement); see also Walker Settlement Direct

Testimony at 2. See Seitz Settlement Direct Testimony at 3; Kobor Settlement Direct Testimony at 1; Heidell Settlement Direct Testimony at 1; Birmingham Settlement Direct Testimony at 4; see also Settlement Agreement at 4.

B. The positive benefits to customers that will result from the Agreement balance the proposed rate increase.

The Agreement resolves almost all of the issues raised in this proceeding and carefully balances the interests of utility customers and utility shareholders. The Agreement positions APS to meet customer needs and interests in light of the electric industry's rapid change and provides tangible benefits to APS customers with as little financial impact to them as possible. Kevin Higgins, representing Freeport Minerals Corporation and Arizonans for Electric Choice and Competition, Calpine Energy Solutions, Constellation NewEnergy LLC, and Direct Energy Business LLC (collectively AECC and IPPs), stated that "the Settlement Agreement constitutes a reasonable resolution to the overall case by providing meaningful protections and benefits to customers, while giving APS a reasonable opportunity to earn a fair return on its investment." ²⁶

It has been five years since the conclusion of APS's last rate case.²⁷ The Settlement in the last rate case provided a framework for stability and rate gradualism. This Agreement builds on that framework and provides the opportunity for continued stability and continued rate gradualism for customers. In addition, customers will have the opportunity to exert greater control over their energy use and their monthly bills. The Agreement strikes the right balance between customer and Company benefits and is in the public interest.

1. The Agreement provides rate stability for customers.

Under Section II of the Agreement, APS agreed to a three year stay-out such that APS will not file its next general rate case prior to June 1, 2019 and the test year end date for the base rate filing will not be earlier than December 31, 2018.²⁸ A stay-out provision of this length provides significant benefits to all customers.²⁹ Wal-Mart witness Chris Hendrix recognized the magnitude of APS accepting a rate stability

²⁶ See Higgins Settlement Direct Testimony at 4.

²⁷ See Decision No. 73183 (May 24, 2012). ²⁸ See Settlement Agreement at Section 2.1.

²⁹ Tr. 311:7-10 (Lockwood), see also Abinah Settlement Direct Testimony at 7.

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provision stating that "[t]he primary benefit that all customers, including commercial customers, will receive from the settlement is that APS may not file a new base rate case until at least June 1, 2019."³⁰

AECC and IPPs witness Higgins agreed, testifying that he participates in general rate cases around the country and that in many jurisdictions, rate cases have become annual events.³¹ He further stated that "[a] stay-out in excess of two years conveys a significant benefit to customers in terms of rate stability and rate certainty."³² A stay-out provision requires voluntary acceptance by APS and would have been unlikely in a fully litigated case. Even parties that did not sign the Agreement recognized that settlements can produce outcomes and provide benefits that could not be obtained through litigation.³³

2. The Settlement begins to modernize rates.

Importantly, the Agreement also implements modern rate structures that offer more choice and opportunities for customers to save and incorporate new technologies.³⁴ The electric utility industry is rapidly changing and there is a need to create an electric grid that enables customer choice and opportunities for new technologies, while recognizing changing resources and load patterns.³⁵ The Agreement begins to fairly assign grid costs to customers and modernize rate designs to account for rapidly evolving customer needs.³⁶ IBEW witness David Vandever testified that the Agreement:

modernizes an archaic, economically inefficient, ineffective, and unfair pricing structure. The Agreement allows for new updated rate designs with rate options for all customers and eliminates the misalignment of rates and costs.

See Hendrix Settlement Direct Testimony at 2; see also Tr. 311:7-10 (Lockwood).

³¹ See Higgins Settlement Testimony at 4-5. 32 *Id* at 5.

³³ Tr. 1165:11-17 (Schlegel).

See Lockwood Settlement Direct Testimony at 2-3.

³⁵ See Tr. 308:6-25 (Lockwood); Tr. 1036:12-1037:20 (Smith). ³⁶ See Tr. 309:1-25 (Lockwood).

³⁷ See Vandever Settlement Direct Testimony at 4.

Additionally, ConservAmerica witness Walker testified, the settlement adopts a modernized rate design and will reduce costs and emissions while increasing fairness.³⁸ The newly designed rates proposed in the Agreement are a positive step towards necessary rate modernization and provide additional benefits to customers.³⁹

a) The Agreement preserves customer choice.

Residential customers will continue to have rate options and will have the opportunity to select between three, flat two-part rates, a TOU energy rate, and two, TOU demand rates. APS will provide customers with information on the various rate options that would minimize their bill. Customers that do not select a different rate will be transitioned to the updated rate plan most like their existing rate plan on or before May 1, 2018. Additionally, at least 90 days prior to transitioning customers who have not selected a rate, APS will provide a report to the ACC with the total number of customers who have not made a selection.

APS's original application removed all volumetric two-part rate options except for the smallest customers (600 kWh and smaller), and the Company still maintains that three-part rates better reflect costs and are appropriate for all customers. However, the Agreement provides that volumetric two-part rates will remain as options after May 1, 2018. Rate R-XS will be available to all qualifying customers that average less than 600 kWh per month, and R-Basic will be available to new customers after 90 days of initial service on a TOU energy or TOU demand rate. Even non-settling parties who object to the 90-day provision, which is discussed in more detail in Part VIII, agree that

³⁸ See Walker Settlement Direct Testimony at 3-4.

³⁹ Tr. 305:16-20 (Lockwood); Tr. 412:8-13 (Miessner); *see also* Yaquinto Settlement Direct Testimony at 8.

⁴⁰ Tr. 996:22-997:8 (Smith); *see also* Quinn Settlement Direct Testimony at 5-6; Settlement Agreement at Section 17.

⁴¹ Tr. 312:3-314:4 (Lockwood).

⁴² See Settlement Agreement at Paragraph 26.1.

⁴⁴ Miessner Direct Testimony at 26.

See Settlement Agreement at Paragraph 19.1.
 Id.

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the Settlement provides customers with a variety of rate options to choose from, including two-part rates.⁴⁷

These rate provisions are another example of how settlements provide the opportunity for parties to make concessions and compromise to produce positive results that would have been unlikely in a litigated case. Even SWEEP witness Schlegel recognized this point, stating, "I agree that it's a concession to, of APS to allow the twopart rate to exist, both for existing customers and for new customers after the 90-day waiting period, relative to their initial application."⁴⁸

b) Customers will benefit from additional off-peak hours and holidays for time-differentiated rates.

The Agreement increases the amount of off-peak hours and holidays for TOU rates. Rates R-TOU-E, R-2, R-3, and R-Tech have on-peak hours of 3 p.m. to 8 p.m. weekdays with 10 exempt holidays. 49 In addition, R-TOU-E also adds a super off-peak period from 10 a.m. to 3 p.m. weekdays during the winter months.⁵⁰ TOU rates encourage more usage when energy supply is highest and prices are the lowest, and less use when energy supply is lower and prices are higher.⁵¹ APS witness Charles Miessner testified:

the [new TOU rate has] fewer on-peak hours that are aligned with APS's highest peaks and costs. This will help focus demand reduction to when it is most needed and provide more off-peak hours for customers.

Although a few parties have taken issue with the new TOU window, which is discussed later in this brief, a majority of the parties support this positive change.⁵³ The

⁴⁷ Tr. 716:9-16 (Coffman).

⁴⁸ Tr. 1171:23-1172:8 (Schlegel).

⁴⁹ See Settlement Agreement at Paragraph 17.8 and Appendix F; see also Miessner Settlement Direct Testimony at 10.

⁵⁰ Settlement Agreement at Paragraph 17.4.

⁵¹ See Miessner Settlement Direct Testimony at 11.

⁵² See Tr. 341:17-21 (Miessner).

⁵³ See e.g., Birmingham Settlement Direct Testimony at 6; Kobor Settlement Direct Testimony at 5; Vandever Settlement Direct Testimony at 4.

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⁵⁴ Tr. 310:4-11 (Lockwood). 55 See Miessner Settlement Direct Testimony at 11; Heidell Settlement Direct Testimony at 7; Tenney

new TOU hours will benefit customers and better align the system peak with energy usage through proper price signals.⁵⁴

The Agreement creates a pilot technology rate called Rc) Tech for 10,000 customers.

R-Tech is a TOU rate with on-peak and off-peak demand and energy charges designed to incent customers to adopt energy technologies to manage their demand and help reduce APS's system peak to customers' benefit.⁵⁵ The rate is available for up to 10,000 customers who adopt certain home energy technologies, including (primary technologies) solar, storage, electric vehicle, and (secondary technologies) devices with variable speed motors, grid interactive water heating, smart thermostats, and automated load controllers.⁵⁶ To qualify, the customer must purchase two or more primary technologies within 90 days prior to enrollment, or purchase one primary technology within that timeframe and also have two secondary technologies installed.⁵⁷ This pilot rate will test the ability and desire of participating residential customers to reduce onpeak energy and demand usage through multiple behind-the-meter technologies.⁵⁸

d) The Agreement provides for customer education and outreach to support modernized rates.

APS is committed to educating customers on the various rate plans and options outlined in the Agreement. Section XXVII of the Agreement requires APS to make a one-time allocation of \$5 million from the collected, but unspent, Demand Side Management Adjustor Clause (DSMAC) funds for education and to help customers manage new rates and rate options, including services and tools to help customers manage their energy costs.⁵⁹ RUCO witness Tenney testified that this provision was "extremely important as the trend moves towards more modernized rates." 60

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Settlement Direct Testimony at 4.

See Settlement Agreement Appendix F.

⁵⁷ See Settlement Agreement at Paragraph 17.7.

⁵⁸ See Abinah Settlement Direct Testimony at 13.

⁵⁹ See Settlement Agreement at Section 27.

⁶⁰ See Tenney Settlement Direct Testimony at 8-9.

Additionally, APS is committed to filing an outreach and education plan and will provide stakeholders with an opportunity for review and comment on the draft plan prior to finalizing it.⁶¹ APS witness Lockwood testified that "[i]t is our full intent to make sure that customers are well informed about all of their options . . . I can assure you we are committed to making sure that customers are aware and understand their options." APS will notify customers through a variety of different channels and encourage customers to choose the rate that works best for them. Some of the available communication channels include: aps.com, social media, the APS customer care center, IVR phone system, and email.

3. APS's commercial and industrial customers benefit from the Agreement.

The Agreement provides for a number of new or modified rate options for commercial and industrial customers.⁶⁵ These include: (1) additional money-saving options for commercial customers; (2) a discount for military and school customers; and (3) the continuation of a buy-through rate for industrial customers.⁶⁶

a) The Agreement provides commercial customers additional money-saving options.

Section XX of the Agreement adopts an economic development rate, extra high load factor rate, and an aggregation feature benefitting commercial customers.⁶⁷ Additionally, APS has agreed to redesign E-32 L in a revenue neutral manner.⁶⁸

 Economic Development Rate: Qualifying new customer sites and significant net expansions for existing sites served under extra-large

⁶¹ See Lockwood Settlement Rebuttal Testimony at 6.

⁶² Tr. 293:10-15 (Lockwood).

⁶³ Tr. 251:9-21 (Lockwood).

⁶⁴ Tr. 312:3-314:4 (Lockwood).

⁶⁵ Tr. 305:11-15 (Lockwood).

⁶⁶ See Tr. 314:21-315:21 (Lockwood).

⁶⁷ See Settlement Agreement at Section 20.

⁶⁸ See Settlement Agreement at Paragraph 21.1.

general service rates E-34 and E-35 will benefit from specially crafted pricing discounts.⁶⁹

- Extra High Load Factor Rate: Qualifying customers with an average load factor above 92% and 5,000 kW will be classified separately from a cost of service standpoint. Customers 15,000 kW and larger will have the additional benefit of qualifying for transmission level service through a contribution in aid of construction (CIAC) to APS, rather than outright purchase of the facilities.
- Aggregation Feature: E-32 L and E-32 L TOU customers with multiple sites that individually do not qualify for the extra-large rates and the associated lower costs, can aggregate and take advantage of a \$0.0024 per kWh discount in the unbundled generation rate.⁷²
- **E-32 L Rate Design:** APS will redesign E-32 L in a revenue neutral manner to recover an additional amount of \$1.36 per kW in the unbundled generation charges.⁷³

b) Military and public school customers will qualify for an additional discount.

Section XXIV of the Agreement provides that the unbundled delivery charge for service at military-primary voltage under rates E-34 and E-35 will be reduced to a level that results in any applicable military customer getting a net impact bill increase equal to the average for all retail customers. Additionally, Section XXII states that all public schools and public school districts (including charter schools) will be eligible for a new rate rider. And if a public school or public school district applies for service under this

⁶⁹ See Snook Direct Testimony at 47.

⁷⁰ *Id.* at 46.

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⁷² See Miessner Direct Testimony at 53.

 ⁷³ See Settlement Agreement at Paragraph 21.1.
 ⁷⁴ See Settlement Agreement at Paragraph 24.1.

rate rider, they will receive a discount of \$0.0024/kWh.⁷⁵ These provisions will benefit APS's military and public school customers.

c) The Agreement continues a buy-through rate for industrial customers.

Industrial customers will benefit from the continuation of a buy-through program in the Agreement in a manner that seeks to hold APS and other customers harmless. This provision is an example of how settlement provides parties the opportunity to work collectively to resolve issues and make concessions from their litigated positions.

AG-1 was created in APS's last rate case settlement as an experimental program and APS originally proposed to not renew the program. In contrast, other parties proposed to fully integrate the program as a permanent rate offering in their direct cases. Through settlement, the parties were able to find a satisfactory solution that meets the proponents needs while addressing APS's concerns and protecting other customers. In support of the Agreement and the AG-X program in particular, AECC and IPPs witness Higgins explained that, "[w]hile the Settlement Agreement does not go as far as I had advocated in my direct testimony . . . the Settlement Agreement does not design the AG-X program to be temporary," The Company committed to continue the program in its next general rate case, and AECC and IPPs witness Higgins testified that "it is important and in the public interest for this program to continue into the future."

The Agreement adopts a number of significant changes from the current AG-1 program, including adjustments to several fees. These changes enabled APS to support the continuation of an updated buy-through program.⁸¹ AECC and IPPs witness Higgins testified that "[w]hile these increases in charges erode some of benefits from customer

⁷⁵ *Id.* at Paragraph 22.1.

⁷⁶ See Snook Direct Testimony at 43-46.

⁷⁷ See Higgins Direct Testimony at 9-10.

⁷⁸ See Higgins Settlement Direct Testimony at 9.

⁷⁹ Tr. 820:5-15 (Snook).

⁸⁰ See Higgins Settlement Direct Testimony at 8.

⁸¹ Tr. 820:16-821:22 (Snook).

participation in this program, I believe that overall this result is acceptable because it allows for the continuation of a successful program that is likely to continue to provide customer benefits despite these higher charges."82

4. The Agreement continues to protect APS's most vulnerable customers.

The Agreement recognizes the need to provide assistance to limited income customers in APS's service territory. The Agreement contains three provisions designed to help the most impoverished in our community: (1) an increase to emergency bill assistance; (2) simplification of the limited income discount; and (3) the creation of a utility-owned DG program targeted at limited and moderate income Arizonans referred to as AZ Sun II. Many parties, signing and non-signing alike, agree that these provisions of the Agreement are in the public interest and provide benefits to many of APS's most vulnerable customers.⁸³

a) Limited income customers benefit from an increase in crisis bill funding.

Section XXIX of the Agreement provides that APS will fund \$1.25 million annually toward the crisis bill program to assist customers whose incomes are less than or equal to 200% of the Federal Poverty Income Guidelines. On behalf of limited income customers, ACAA witness Cynthia Zwick, supported the Agreement, stating that "[b]y committing to fund bill assistance at \$1.25 million per year, the settlement provides for assistance to the most vulnerable, ensuring that community agencies have enough assistance funds to meet the need of the community."⁸⁴

b) Limited income bill discounts will be simplified.

Additionally, the Agreement simplifies the limited income bill discounts to a standard percentage discount while keeping the average discount per customer the same.

APS's E-3 Energy Support Program for limited income customers will be revised to

⁸² See Higgins Settlement Direct Testimony at 8.

⁸³ See Tr. 306:3-6 (Lockwood); Tr. 1087:22-24 (Tenney); Tr. 709:1-18 (Coffman); see also Abinah Settlement Direct Testimony at 18.

⁸⁴ See Zwick Settlement Direct Testimony at 2.

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provide eligible customers with a flat 25% bill discount, and the E-4 Medical Support Program for limited income customers who have life sustaining medical equipment will be revised to provide eligible customers with a flat 35% bill discount. 85 ACAA witness Zwick further stated that "[b]y increasing the low-income discount and low-income medical discount to 25% and 35% of a customer's bill, respectively, the energy burden of many low-income customers will be reduced to a more affordable level."86

AZ Sun II will expand rooftop solar access for limited c) and moderate income Arizonans.

A number of parties voiced interest in securing broader access and opportunities for customers to adopt solar.87 AZ Sun II is another example of how settlements can foster creative solutions that would not result from a fully litigated proceeding. The parties created a three-year program called AZ Sun II to serve low and moderate income residential customers and the non-profits that serve them, as well as Title I schools and rural government customers.⁸⁸ These customers will be eligible to participate in the program and obtain utility-owned and operated photovoltaic solar systems on their property.⁸⁹ Importantly, ACAA witness Zwick supports the AZ Sun II program, stating that it "will provide the option to "go solar" for thousands of low-income customers who never previously had the option."90 And ASDA witness Sean Seitz agreed that "the AZ Sun II program will allow for more customers, including low income, to have access to solar."91

The Agreement provides that APS will spend no less than \$10 million per year, and no more than \$15 million per year, in direct capital costs. 92 This program will help expand access to solar for low and moderate income customers. Specifically, Section

⁸⁵ See Settlement Agreement at Section XXIX.

⁸⁶ See Zwick Settlement Direct Testimony at 2.

See Lockwood Settlement Direct Testimony at 12; Walker Direct Testimony at 9-10.

⁸⁸ See Settlement Agreement at Section XXVIII.

⁸⁹ See Lockwood Settlement Direct Testimony at 12.

⁹⁰ See Zwick Settlement Direct Testimony at 3.

See Seitz Settlement Direct Testimony at 2. ⁹² See Settlement Agreement at 25.

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100 Id. Settlement Agreement at Paragraph 28.7.

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28.2d requires that at least 65% of the annual program will be dedicated to residential installations for low income households with incomes at or below 200% of the federal poverty level.⁹³ And at the end of nine months of each program year, any unspent funds dedicated to low income residential installations can be used for other eligible customers.94

All reasonable and prudent costs incurred by APS pursuant to this program will be recoverable through the Renewable Energy Adjustment Clause until the next rate case. 95 Reasonable and prudent costs include: O&M expenses, property taxes, marketing and advertising expenses, and the capital carrying costs of any capital investment by APS through this program. 96 The Commission retains the authority to review APS's expenses under this program for prudence in each annual REST docket.⁹⁷ In addition, if any of the solar systems are included in APS's rate base for its next rate case, those inclusions will be subject to a prudence review.⁹⁸

The Settlement provides that if the program is approved in this case, APS need not seek further approval in the REST docket for the program or the spending authorized in this rate case. 99 Lastly, APS agreed not to implement any additional utility-owned residential solar distribution generation programs prior to APS's next general rate case beyond AZ Sun II.¹⁰⁰ This program is a creative and reasonable outcome to help meet the needs and interests of various parties in this case. It provides benefits for a segment of the Company's customer base that has been historically underserved regarding solar options. 101

⁹³ See Lockwood Settlement Direct Testimony at 12.

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⁹⁵ See Settlement Agreement at Paragraph 28.2.

⁹⁷ *Id.*; Tr. 1268:24-1269:5 (Abinah).

¹⁰¹ Tr: 309:12-16 (Lockwood); see also Walker Settlement Direct Testimony at 12.

5. The Agreement resolves all residential solar issues.

Staff witness Abinah stated that "[a] major and important part of the Agreement is the resolution of many of these contentious issues related to DG solar for the term of the Agreement." The Agreement provides for grandfathering for current DG customers. And consistent with the Commission's ruling in the Value and Cost of Solar Decision, the Agreement proposes an RCP export rate and Plan of Administration for new DG customers. The Agreement preserves customer choice, and new DG customers will have the opportunity to choose from various rate options including a TOU rate. In addition, the Agreement provides for the withdrawal of challenges to the Commission's recent Decisions concerning the value and cost of DG.

Staff testified that these provisions, in concert, have tremendous benefit in that they will significantly reduce the time and resources of all parties (including the Commission) that would otherwise be spent on litigation, and will instead allow parties to focus their resources on serving consumers and other prospective policy matters. RUCO witness Tenney also stated that, "[f]or the foreseeable future, the prospects of legal challenges, legislation, and voter initiatives is set aside which hopefully leads to a more collaborative relationship and sustainable future, moving forward." Again, through settlement, parties were able to reach a compromised outcome that was acceptable to a majority of the parties, notably including all five parties representing solar interests.

a) Current DG customers will benefit from grandfathering.

DG customers whose systems are interconnected prior to the rate effective date and those that submit a completed interconnection application to APS before the rate effective date adopted in this case will be grandfathered for a period of twenty years

¹⁰² See Abinah Settlement Direct Testimony at 20.

¹⁰³ Tr. 1270:2-9 (Abinah).

See Heidell Settlement Direct Testimony at 2.
 See Abinah Settlement Direct Testimony at 21.

¹⁰⁶ See Tenney Settlement Direct Testimony at 9.

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¹¹¹ See Miessner Direct Testimony at 16.

¹¹² Tr. 309:17-25 (Lockwood); see also Miessner Settlement Direct Testimony at 13. ¹¹³ See Settlement Agreement at Paragraph 18.1, see also Settlement Agreement Appendix F.

under the current net metering tariff and rate design. 107 The twenty-year period begins on the date the system is first interconnected with APS's system. EFCA witness Heidell explained that by grandfathering current DG customers, and allowing those customers to take service under the current net metering tariff, it "preserves the economics that customers thought they would be subject to when they made long term investments in distributed generation." ¹⁰⁸

b) The Agreement preserves multiple rate design options for new DG customers.

Under the Agreement, new rooftop solar customers retain the ability to choose from all proposed TOU and demand rates. 109 This was a significant concession by the Company from its originally filed position. 110 APS still maintains that demand-based rates better reflect the cost of service, help reduce intra-class subsidies, and provide incentives for new behind-the-meter technologies for customers. In addition, demand rates provide accurate price signals for incenting how and when customers use electricity, and provide opportunities for customers to save on their bill without shifting costs to other customers.¹¹¹ However, in the spirit of compromise, the Company accepted a more moderate rate design change where new DG customers will retain the opportunity to choose from a TOU rate with a Grid Access Charge. 112

The Agreement adopts a Grid Access Charge of \$0.93 per kilowatt of direct current (kW-dc) per month. 113 This fee was calibrated to result in the settled-on consumption offset rate described in Paragraph 18.2 of the Agreement:

[t]he self-consumption offset rate for TOU-E [is] \$0.105/kWh, which is inclusive of the Grid Access Charge, but exclusive of taxes and adjustors. This is an approximately \$0.120/kWh offset rate after these adjustments. The offset rate is based on the load profile and production profile of APS customers with DG during the test year. Individual customer offsets will

¹⁰⁷ See Settlement Agreement at Paragraphs 18.5 and 18.6. ¹⁰⁸ See Heidell Settlement Direct Testimony at 2.

¹⁰⁹ See Lockwood Settlement Direct Testimony at 9; see also Abinah Settlement Direct Testimony at 13. ¹¹⁰ See Lockwood Direct Testimony at 20-21; Miessner Direct Testimony at 14-17.

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This particular provision was extensively negotiated by the parties. In the end, all parties, including Staff, RUCO, and all five solar parties, agreed on it. Vote Solar witness Briana Kobor stated that "when considered with the balance of issues addressed by the Proposed Settlement Agreement, including the agreed upon offset rate, I find the monthly \$0.93/kW-dc charge that results in a self-consumption offset rate of \$0.105/kWh [to be] a reasonable compromise." Further, EFCA witness Heidell recognized that the Agreement's "treatment of new rooftop solar customers provides options."

c) The Agreement fully implements Decision Nos. 75859 and 75932 regarding the Value and Cost of Solar.

The Agreement implements the Resource Comparison Proxy Rate (RCP) for exported energy established in the Commission's Value and Cost of Solar Decisions (Decision Nos. 75859 and 75932) for new residential DG customers. Existing DG customers will be grandfathered. New residential DG customers who first apply for interconnection after the rate effective date will move away from net metering and begin receiving compensation for the exported energy at the negotiated first year rate of \$0.129/kWh, which is inclusive of undifferentiated transmission, distribution and loss components. 119

Importantly, all parties, including EFCA, agreed that the "first year export rate is the product of settlement negotiations and does not create any precedent, imply any change to the structure of or detail in the Resource Comparison Proxy, or otherwise

¹¹⁴ See Settlement Agreement at Paragraph 18.2.

¹¹⁵ See Kobor Settlement Direct Testimony at 6; Birmingham Settlement Direct Testimony at 6; Heidell Settlement Direct Testimony at 5.

¹¹⁶ See Kobor Settlement Direct Testimony at 6.

See Heidell Settlement Direct Testimony at 2.

¹¹⁸ See Settlement Agreement at 19-20.

See Settlement Agreement at Paragraph 18.3; Lockwood Settlement Direct Testimony at 10; Heidell Settlement Direct Testimony at 3.

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change any aspect of Decision No. 75859."¹²⁰ Additionally, the RCP Plan of Administration specifically addresses the nature of the \$0.02 kWh adjustment, stating that the "amount is negotiated, does not reflect an actual calculation of system conditions, and establishes no precedent for any future RCP or avoided cost calculations."¹²¹ RUCO witness Tenney described the balance struck by this compromise, as "[a] sustainable path forward was developed to lessen the impact on non-solar customers while still providing enough incentive for the solar industry to continue operating."¹²²

d) The Agreement provides for the withdrawal of legal challenges to Decision Nos. 75859 and 75932.

Upon final approval of the Settlement Agreement (which occurs when the Commission issues a decision adopting the Settlement Agreement with no material changes and that decision is no longer subject to appeal), all Signing Parties agree to promptly take all necessary actions to (i) withdraw any challenge to Decision Nos. 75859 and 75932 they have filed, and (ii) refrain from pursuing any legal challenge to Decision Nos. 75859 and 75932 in any forum. This is another example of a provision in the Agreement that provides benefits that would not be available to the Commission if this case were fully litigated. RUCO witness Tenney testified that RUCO was particularly interested in the agreement by the solar parties to withdraw any appeals of the Commission's value of solar decisions and believed that it is "something that is good for all the residents of Arizona." 125

¹²⁰ See Heidell Settlement Direct Testimony at 5-6; Lockwood Settlement Rebuttal Testimony at 3; see also Settlement Agreement at Paragraph 18.4.

¹²¹ See RCP Plan of Administration at 6.

¹²² See Tenney Settlement Direct Testimony at 9.

¹²³ See Settlement Agreement at Section 35.

¹²⁴ See Tr. 306:14-307:15 (Lockwood). ¹²⁵ See Tr. 1088:9-14 (Tenney).

e) The Joint Solar Parties Cooperation Agreement will create a period of stability and collaboration.

Lastly, through a separate confidential agreement, APS, solar industry representatives, and solar advocates have agreed to refrain from undermining the Agreement through ballot initiatives, legislation, or other advocacy. Due to the confidential nature of the agreement, this brief will not expand on the details of the Cooperation Agreement. However, the Joint Solar Cooperation Agreement is intended to provide a period of stability during which parties can begin addressing important policy issues through collaboration, rather than litigation.

6. The Agreement Supports APS financially during a three year stay-out.

The Agreement provides APS the opportunity to maintain adequate financial health during the agreed upon stay-out period, allowing it to continue to provide high quality service to customers and achieve Arizona's energy goals. AIC witness Yaquinto recognized that "[t]here are a number of provisions contained in the Settlement Agreement that will enhance and support the financial health of APS." And APS witness Lockwood testified that the settlement brings a number of benefits, starting with providing the company the financial stability to continue to invest on behalf of our customers and provide safe and reliable service. 128

The economic and financial aspects of the Agreement include: (1) a modest revenue requirement increase; (2) an updated depreciation rate and expense; (3) a cost of capital package; (4) a deferral mechanism to account for expenses associated with installing Selective Catalytic Reduction (SCR) equipment at the Four Corners Power Plant and a step-increase to mitigate the respective financial impact; (5) a deferral mechanism to account for the expenses associated with the Ocotillo Modernization Project (OMP); (6) a deferral mechanism that protects APS and customers from changes to APS's property tax expense; (7) modifications to the Company's Lost Fixed Cost

¹²⁸ Tr. 309:3-9 (Lockwood).

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¹²⁶ See Lockwood Settlement Direct Testimony at 3.

¹²⁷ See Yaquinto Settlement Direct Testimony at 3.

Recovery (LFCR), Environmental Improvement Surcharge (EIS) and Transmission Cost Adjustment (TCA); and, (8) revisions to the PSA adjustor rate.

a) The Agreement provides APS a moderate revenue requirement increase.

To ensure that APS has sufficient revenue to provide high quality service and the ability to maintain the grid during a three year stay-out, Section III reflects an agreement to set APS's fair value rate base at \$9,990,561,000.¹²⁹ Additionally, the parties agreed to increase APS's base rates by \$362.577 million, of which \$267.953 million is already collected through APS's adjustors.¹³⁰ In other words, the Agreement provides APS a net non-fuel, non-depreciation revenue requirement increase of \$87.250 million.¹³¹ Section VIII of the Agreement provides the details of this revenue neutral transfer of funds currently collected in APS's adjustor mechanisms.¹³² The base rate increase is comprised of:

Non-Fuel, Non-Depreciation Increase	\$87.250 million; plus
Depreciation Expense Increase	\$61.000 million; which equals
Non-Fuel Base Rate Increase	\$148.250 million; less
Base Fuel Rate Decrease	\$(53.626) million; which equals
Net Base Rate Increase before Adjustors	\$94.624 million; plus
Transfer from Adjustor Mechanisms	\$267.953 million; which equals
Total Base Rate Increase	\$362.577 million. ¹³³

The proposed revenue requirement increase is moderate and represents a more than 40% decrease from the Company's original request. 134

¹²⁹ See Settlement Agreement at Paragraph 3.2.

¹³⁰ See Snook Settlement Direct Testimony at 3.

 ¹³¹ See Settlement Agreement at Paragraph 3.1.
 132 See Settlement Agreement at Paragraph 3.2.

¹³³ See Snook Settlement Direct Testimony at 3.

¹³⁴ Tr. 1087:3-7 (Tenney); see also Alderson Settlement Direct Testimony at 3; Higgins Settlement Direct Testimony at 3.

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¹⁴² See Snook Settlement Direct Testimony at 5.

In addition, when new rates become effective, the average bill impact across all customer classes will be 3.28%, compared to 5.74% in APS's original filed case. Under the Agreement, residential customers will experience a 4.54% average bill impact compared to 7.96% in APS's original application, a moderation that was of particular importance to RUCO. And general service customers will experience a 1.93% average bill impact. Finally, to further moderate impacts to customer bills, Section 4.2 of the Agreement requires APS to refund \$15 million of collected, but unspent, DSMAC funds. This customer credit will be refunded through the DSMAC and will lower customer bills in the first year.

b) The Agreement settles all disputes on depreciation expense.

Customers will benefit from reduced depreciation rates and annual depreciation expenses that are lower than originally proposed by APS.¹³⁹ Section VI of the Agreement provides that APS will lower its annual depreciation expense request by \$20 million per year to the benefit of customers, resulting in a \$61 million increase in depreciation expense (inclusive of Cholla 2 Regulatory Asset Amortization).¹⁴⁰ APS agreed to adjust its proposed lives and net salvage rates for its distribution account and accelerate the amortization of the present excess depreciation reserves for Palo Verde.¹⁴¹

APS accepted a \$21 million decrease in annual depreciation expense for the Palo Verde Nuclear Generating Station. The Signing Parties agreed to apply all excess funds from the Palo Verde depreciation decrease to accelerate the amortization of the Cholla 2 regulatory asset. APS closed Cholla Unit 2 on October 1, 2015, and recorded a

¹³⁵ See Settlement Agreement at Paragraph 4.1; see also Miessner Direct Testimony at 3.

¹³⁶ Tr. 1087:8-11 (Tenney).

¹³⁷ See Settlement Agreement at Paragraph 4.1(a); see also Miessner Direct Testimony at 3. ¹³⁸ Id. at Paragraph 4.2.

¹³⁹ See Lockwood Direct Testimony at 15; White Direct Testimony at 11; Higgins Settlement Direct Testimony at 5; Smith Settlement Direct Testimony at 2.

¹⁴⁰ See Settlement Agreement at Paragraph 6.1.

regulatory asset relating to the remaining un-depreciated net book value.¹⁴³ Because Cholla Unit 2 is no longer providing service, it is in the public interest to accelerate the amortization of the regulatory asset.¹⁴⁴ RUCO witness Tenney testified that this resolution offered future benefits to customers, stating that RUCO was:

glad to see . . . the Company . . . agree to making an accounting modification that will accelerate depreciation on Palo Verde and more rapidly amortize Cholla 2 . . . therefore creating benefit for the ratepayers that will be realized in future rate cases. 145

Additionally, if the Cholla 2 regulatory asset becomes fully amortized prior to APS's next general rate case, the excess funds from the Palo Verde depreciation decrease will be used to accelerate recovery of APS's remaining investment in the Navajo Generating Station. 146

Lastly, for the purposes of this case, APS's depreciation rates are deemed to use the straight-line method, vintage group procedure and remaining life technique. ¹⁴⁷ In APS's next rate case, the Company will file an alternative calculation for cost of removal and dismantlement using the "FAS 143" discounted net present value method. ¹⁴⁸ Staff witness Smith stated that, "[h]aving the alternative calculations included with APS's filing will facilitate evaluation by Staff and other parties of alternatives that could help mitigate the impact on customers of depreciation rate increases that are attributable to estimated future inflation."¹⁴⁹

c) The cost of capital provisions support the financial health of APS.

The Agreement's cost of capital provision outlines the capital structure, cost of capital and fair value rate of return for the Company. The Agreement adopts APS's

¹⁴³ See Smith Settlement Direct Testimony at 2-3.

Id. at 3.

¹⁴⁵ Tr. 1087:12-18 (Tenney).

¹⁴⁶ See Settlement Agreement at Paragraph 6.4.

See Snook Settlement Direct Testimony at 5.
 See Settlement Agreement at Paragraph 6.6.

See Settlement Agreement at Paragraph 6.6.

149 See Smith Settlement Direct Testimony at 5.

¹⁵⁰ Settlement Agreement at Paragraph 5.

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¹⁵⁵ See Settlement Agreement at Section IX.

¹⁵³ See Snook Direct Testimony at 14.

¹⁵² See Snook Settlement Direct Testimony at 4.

¹⁵⁶ See Snook Direct Testimony at 14-15; Lockwood Direct Testimony at 19. ¹⁵⁷ See Yaquinto Settlement Direct Testimony at 5.

¹⁵¹ Tr. 994:25-995:12 (Smith); see also Tenney Settlement Direct Testimony at 4.

filed capital structure of 44.2% debt and 55.8% equity, as well as APS's filed embedded cost of debt of 5.13%. APS had requested a higher return on common equity to reflect

market conditions and systemic risk, but the Agreement only maintains the Company's

existing authorized return on common equity of 10.0%, a concession important to both

Staff and RUCO.¹⁵¹ The Company also accepted a reduction to its existing fair value

increment from 1% to 0.8%. 152 Despite these concessions by the Company, the cost of

capital provisions provide a financial foundation upon which the Company believes it

can continue providing safe and reliable service for its customers.

The deferral and step increase for SCRs are necessary d) for APS to sustain a three year stay-out.

APS witness Leland Snook explained that APS must install SCRs at its Four Corners Generating Facility in order to comply with federal environmental standards. 153 This equipment will significantly reduce fossil emissions of nitrogen oxides, while permitting APS to continue supplying its customers with a diverse portfolio including fossil base load generation. 154 Section IX of the Agreement describes the rate treatment related to the installation of SCRs at Four Corners Units 4 and 5 and is essential for the Company to sustain a three year stay-out contained in the Agreement. 155 Absent this provision, APS could not agree to a stay-out of any length. 156 AIC witness Yaquinto agreed, stating:

... these mechanisms promote rate gradualism and prevent the Company from filing pancaked rate applications. This benefits the Company, its customers, the Commission and the public in general.

APS estimates the direct construction cost for the SCRs to be approximately \$400 million. The first SCR must be installed and begin operating by March 31, 2018, and the

second must be in operation no later than July 31, 2018.¹⁵⁸ Because the SCRs were not in service in time to be included in this case, a deferral and step increase is a mitigating alternative to APS having to immediately file another rate case.¹⁵⁹ This provision leaves this docket open for the sole purpose of allowing APS to file a request in part two of this case that its rates be adjusted, no later than January 1, 2019, to reflect the proposed addition of SCR equipment at Four Corners.¹⁶⁰

APS requests the following specific language concerning the step-increase be included in the Commission's decision in this matter:

This rate case shall remain open for the sole purpose of allowing APS to file a request, no later than July 1, 2018, that its rates be adjusted to reflect the revenue requirement and deferral costs associated with the Selective Catalytic Reduction (SCR) environmental controls at the Four Corners Power Plant. Specifically, APS may within ten (10) business days after inservice operation of the second SCR, but no later than July 1, 2018, file an application with the Commission seeking to reflect in rates the rate base and expense effects associated with the installation of SCRs on Four Corners Units 4 and 5.

Additionally, the Agreement includes an accounting deferral order for the SCRs similar to the one authorized in Decision No. 73130 (April 24, 2012). Language authorizing a deferral must be clear and unequivocal about what is being deferred and the potential for the deferral's recovery in rates in a specific future rate proceeding for the Company to be able to recognize an accounting deferral on its books of account. Thus, APS urges that any accounting deferral order approved in this decision contain the following language regarding the SCR deferral:

IT IS FURTHER ORDERED that Arizona Public Service Company is authorized to defer for possible later recovery through rates, all non-fuel costs (as defined in Paragraph 9.2 of the Settlement Agreement) of owning, operating, and maintaining the Selective Catalytic Reduction (SCR) environmental controls at the Four Corners Power Plant. Nothing in this Decision shall be construed in any way to limit this Commission's authority to review the entirety of the project and to make any

¹⁵⁸ See Snook Direct Testimony at 14.

Id. at 15; *see also* Smith Settlement Direct Testimony at 13.

¹⁶⁰ See Snook Settlement Direct Testimony at 6.

¹⁶¹ See Snook Settlement Direct Testimony at 6-8; see also Snook Direct Testimony at 16-17.

It is anticipated that "[t]he combined bill impact from the deferral and the ongoing revenue requirement for an average residential customer [will] be slightly over 2%." The rate treatment provisions related to the installation of SCRs at Four Corners are an integral part of the delicate financial balance embedded in the Agreement.

e) The deferral for OMP provides customers a longer period of rate stability.

Critically, the Agreement also includes an accounting deferral order for the OMP.¹⁶³ The OMP involves retiring 220 MWs of existing steam generation and replacing it with 510 MW of state-of-the-art combustion turbine generation.¹⁶⁴ New Ocotillo Units 6 and 7 will go into service in the fall of 2018, and Units 3, 4 and 5 will go into service in the spring of 2019.¹⁶⁵ APS estimates that the total direct construction cost of the OMP will be approximately \$500 million.¹⁶⁶ The OMP is a significant financial investment by the Company, and the timing of this investment is designed to coincide with when APS needs fast-ramping, flexible gas generation to service customers.¹⁶⁷ However, that timing does not coincide with this rate case.

Without a deferral, installing OMP to meet customer needs would virtually guarantee an immediate filing of another rate case with the conclusion of this proceeding. With the deferral, APS will instead be able to make the investment in modernizing Ocotillo without having to file a concurrent rate case to reflect the investment in rates, and customers will have the benefit of a longer period of rate stability. Additionally, Paragraph 10.3 of the Agreement provides that the Commission

¹⁶² See Snook Settlement Direct Testimony at 7.

¹⁶³ See Settlement Agreement at 13.

¹⁶⁴ See Snook Direct Testimony at 10.

¹⁶⁶ *Id*.

¹⁶⁷ *Id.* at 11.

retains the ability to examine the prudency of the OMP in APS's next rate case and that a deferral of the OMP costs does not guarantee recovery of those costs. 168

APS urges that any accounting deferral order approved in this case contain the following language regarding the OMP deferral:

IT IS FURTHER ORDERED that Arizona Public Service Company is authorized to defer for possible later recovery through rates, all non-fuel costs (as defined in Paragraph 10.1 of the Settlement Agreement) of owning, operating, and maintaining the Ocotillo Modernization Project and retiring the existing steam generation at Ocotillo. Nothing in this Decision shall be construed in any way to limit this Commission's authority to review the entirety of the project and to make any disallowances thereof due to imprudence, errors or inappropriate application of the requirements of this Decision.

The deferral provisions for OMP are in the public interest and should be approved.

f) The deferral for property tax expense helps APS maintain its financial health.

The Agreement provides a provision for APS to defer for future recovery from (or credit to) customers the Arizona property tax expense above or below the test year caused by changes to the applicable Arizona composite property tax rate.¹⁶⁹ Staff witness Ralph Smith recognized that the cost deferral related to changes in Arizona property tax rate provision is in the public interest and is "an integral part of the overall Settlement Agreement."¹⁷⁰ He further stated that "[t]he property tax deferral provision enhances APS's ability to extend the period between rate cases and is thus related to the rate case stability provision of the Settlement Agreement."¹⁷¹

Another benefit to customers is that the property tax deferral will not accrue interest if the balance is positive. However, if the balance would be a credit to APS's customers, the balance will accrue interest at APS's short-term debt rate. Any positive or negative property tax deferral balance will be amortized over 10 years in APS's next rate case, with a return equal to APS's short-term debt rate. Lastly, APS's property tax

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¹⁶⁸ See Settlement Agreement at Paragraph 10.3; see also Smith Settlement Direct Testimony at 15.

¹⁶⁹ See Settlement Agreement at Section XI.

¹⁷⁰ See Smith Settlement Direct Testimony at 16.

deferrals will be reviewed for reasonableness and prudence in APS's next general rate case.

g) Modifications to the Company's LFCR, EIS and TCA will help customers and protect APS.

The parties agreed to several important modifications to the Company's LFCR, EIS and TCA. For the LFCR, the parties agreed to four modifications: (1) removal of the LFCR opt-out provision because it has proven unnecessary; (2) revising how the LFCR will be applied to customer bills in order to better align with the updated rate plans; (3) revising when the new LFCR rates will take effect after Commission approval each year; and (4) removal of transmission costs from the LFCR conditioned upon the approval of the proposed TCA modifications. For the EIS, the Agreement provides that the cumulative per kWh cap rate will increase from \$0.00016 to \$0.00050. Additionally, the parties agreed to the creation of a balancing account for the EIS. Lastly, for the TCA, the parties agreed to modify the current adjustor to add a balancing account.

h) The modifications to the Company's PSA are in the public interest.

The Agreement permits APS to recover chemical costs for lime, ammonia and sulfur that are incurred in the generation process through the PSA adjustor rate. ¹⁷⁵ It also provides for recovery of third-party storage contract expenses through the PSA provided that APS files for approval with the Commission 90 days before a contract becomes effective. Lastly, the timing of PSA filings and approvals has been revised to promote efficiency. The September 30 preliminary annual PSA rate filing and the December 31 final annual PSA rate calculation filing will be consolidated into one annual reset filing on or before November 30. The effective date of the PSA rate proposed by APS will remain with the first billing cycle in February, unless the Commission otherwise acts on

¹⁷² See Settlement Agreement at Section XXXII.

¹⁷³ *Id.* at Section XXXIII.

Id. at Section XXXIV.

¹⁷⁵ *Id.* at Section VII.

the APS calculation by February 1.¹⁷⁶ These changes to the PSA are in the public interest.

7. The Agreement contains additional provisions that are in the public interest.

As evidenced by the multitude of benefits already discussed, the Agreement is comprehensive. Certain provisions were not contested, or otherwise the focus of parties during the hearing. Nonetheless, these provisions are important and provide numerous benefits to customers:

- Section XII-Cost of Service Study: APS's cost of service study (in an Excel spreadsheet with inputs linked to outputs) will be made available to parties in its next rate case. APS will also perform the Average and Excess methodology to allocate production demand costs to residential and general service classes and then reallocate production demand within the residential sub-classes based on 4CP in its next rate case, but can propose alternative allocation methods.
- Section XIII-Navajo Generating Station: Any potential impacts of the closure of the Navajo Generating Station will be addressed in Docket No. E-00000C-17-0039 prior to the filing of its next rate case, or the Company may request a separate docket be opened.¹⁷⁷
- Section XIV-Annual Workforce Planning Report: APS will annually monitor and report on the progress it is making toward replacing the aging workforce.¹⁷⁸
- Section XV-Self-Build Moratorium: APS will not pursue any new selfbuild generation option having an in-service date prior to January 1, 2022,

¹⁷⁸ *Id.* at Section XIV.

¹⁷⁶ See Miessner Settlement Direct Testimony at 16-17.

¹⁷⁷ See Settlement Agreement at Section XIII.

and December 31, 2027 for combined-cycle generating units, unless expressly authorized by the Commission.¹⁷⁹

- Section XVI-Tax Expense Adjustor Mechanism: An adjustor will be created to enable the pass-through of income tax effects to customers in the event of significant Federal income tax reform prior to the filing of APS's next rate case.¹⁸⁰
- Section XXXI-Schedule 3: APS will create a new classification in Service Schedule 3 for "Rural Municipal Business Developments" to aid rural communities to better develop the commercial potential of municipally-owned land.¹⁸¹
- Section XXXVII-Compliance Matters: The Agreement adopts Staff's recommendation for the elimination or wavier of certain compliance requirements.¹⁸²

C. The Settlement is a unified package and material changes would disrupt a series of carefully interlocked compromises.

It is highly unlikely that any party is satisfied with the entire Settlement. Instead, each party was willing to accept compromises on important issues in exchange for reciprocal compromises by other parties. Both of these mutual compromises, in turn, were necessarily made in negotiation with yet other parties, who in turn sought modification to yet a different provision that required its own set of delicately balanced compromises. 184

¹⁷⁹ *Id.* at Section XV.

¹⁸⁰ *Id.* at Section XVI.

¹⁸¹ Id. at Section XXXI.

¹⁸² *Id.* at Section XXXVII.

¹⁸³ See Tenney Settlement Direct Testimony at 5; Kobor Settlement Direct Testimony at 3; Birmingham Settlement Direct Testimony at 4.

¹⁸⁴ Tr. 39:8-18 (EFCA Opening Statement); see also Lockwood Settlement Direct Testimony at 3; Abinah Settlement Direct Testimony at 5.

To protect the delicate nature of these compromises, the Signing Parties agreed that any one party (or all parties) can withdraw from the Settlement in response to a material alteration:

If the Commission fails to issue an order adopting all material terms of this Agreement, any or all of the Signing Parties may withdraw from this Agreement, and such Signing Party(ies) may pursue without prejudice their respective remedies at law. For purposes of this Agreement, whether a term is material shall be left to the discretion of the Signing Party choosing to withdraw from the Agreement. [85]

Each Signing Party also agreed to support and defend the Agreement as is before the Commission. 186

These provisions are common in settlement agreements before the Commission, and are designed to promote settlement by protecting the result of parties' negotiations. The evidence must support a finding that the Settlement Agreement is in the public interest, and in every respect, the Commission enjoys the final authority on all aspects of the Settlement. Nonetheless, this Settlement involves a large number of stakeholders with widely diverse interests. Even seemingly modest changes could have cascading effects that one or more parties might deem material. Consistent with the Settlement Agreement, and to protect the delicate compromise that the parties have achieved, APS requests that the Settlement Agreement be approved without material modification.

PART 2: CONTESTED ISSUES

III. EFCA'S REQUEST FOR SPECIAL RATE TREATMENT IS NOT IN THE PUBLIC INTEREST.

EFCA seeks special rate treatment so that its members can offer a new distributed technology to APS customers on more economically-attractive terms. Similar to Net

¹⁸⁶ Id. at Paragraph 40.6.

¹⁸⁵ See Settlement Agreement at Paragraph 39.5.

Energy Metering, however, the changes that EFCA seeks can only be granted at the expense of other APS customers. With NEM, at least one of EFCA's members sold rooftop solar. This time, EFCA's members intend to sell batteries to large commercial customers in APS's E-32 L class (those whose average demand is 401-3,000 kW per month). To support this new business venture, EFCA requests that three aspects of the E-32 L rate design be removed: (i) the 80% ratchet; (ii) the declining demand blocks; and, (iii) the off-peak demand charge.¹⁸⁷

Each of these rate components, however, are critical to ensure that APS collects an appropriate amount of fixed costs from those customers that cause the costs. EFCA's proposal has "taken three or four of the basic safegauards that we have that ensure that each customer pays their proper amount of grid costs and [has] removed every one of them." If the cost-causation link in the E-32 L rate is broken to accommodate EFCA's members, a cost shift will occur as any unrecovered fixed costs are collected from other members of the E-32 L class. The inevitability of this cost shift might be why it is EFCA, and not any member of the E-32 L class, that requests this change.

Because the E-32 L rate design is cost-based and presents no barriers to commercial customers from installing batteries, EFCA's proposal should be rejected. If there is an interest in incentivizing customer-installed batteries beyond the current rate design, APS's proposal to offer transparent incentives that protect all other customers from undue cost shifts is a better alternative. If Arizona has learned anything about incentives for customer-sited technologies, it is this: incentives should be transparent so that they can sized to achieve specific Commission objectives, and reduced as installation costs go down. Arizona has spent more than four years struggling with the alternative—burying incentives in rate design and policies like Net Energy Metering—and APS urges the Commission to avoid creating the same challenges for a new technology.

¹⁸⁸ Tr. 466:17-21 (Miessner).

¹⁸⁷ Garrett Settlement Direct Testimony at 11, 14, and 15, respectively.

A. The EFCA proposal for a non-ratchet alternative to Rate Schedule E-32 L TOU is the new net metering.

The Commission adopted the NEM rules in late 2008 as a means to promote distributed renewable energy. And promote they did. Rooftop solar installations were the major beneficiaries of this subsidy and in no Arizona locale did rooftop solar proliferate more than in the APS service area—increasing from a mere 200 units at the end of 2008 to some 56,000 just eight years later. Installations in 2017 will set a new record, just as has been the case for every year since the institution of NEM. NEM also spawned a new business model as solar leases and PPAs became the norm, with customer-owned solar the increasingly-rare exception.

1. EFCA seeks to further storage using incentives buried in rates, just as NEM furthered rooftop solar.

EFCA seeks to promote a different technology to complement its members' rooftop solar business—battery storage. This would begin the rise of a new high cost distributed technology product in Arizona just as the Commission begins to phase out NEM. And although EFCA couches its arguments in terms of "removing barriers" to the use of battery storage, make no mistake: EFCA's suggested optional rate removes every safeguard against unrecovered costs and cost shifting. ¹⁹¹ EFCA's proposal is specifically designed to promote battery storage, ¹⁹² just as NEM promoted rooftop solar. And the results will be the same—unrecovered fixed costs in the short run and an ever-expanding cost shift over time.

It is worth noting an important difference between the introduction of NEM and the EFCA proposal in this case. NEM had significant support from individual utility customers and representatives of consumer groups. Despite very active participation in this docket by E-32 L customers, however, such as Wal-Mart, Kroger, and entities representing E-32 L accounts (AECC, FEA, and the Schools), no potentially affected

¹⁸⁹ Decision No. 70567 (Oct. 23, 2008). APS's EPR-6 rate schedule was the first NEM tariff approved under these rules in Decision No. 71182 (June 24, 2009).

¹⁹⁰ See EFCA Exhibit 12 (APS's 2017 IRP) at 80.

¹⁹¹ Tr. 466:17-24 (Miessner).

¹⁹² Tr. 1233:7-15(Garrett); Tr. 1235:18-25 (Garrett).

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¹⁹³ Tr. 1234:21-1237:22 (Garrett).

¹⁹⁴ Tr. 1249:7-1250:18 (Garrett).

¹⁹⁵ Tr. 1250:16-18 (Garrett); see also Tr. 1042:7-20 (Smith).

¹⁹⁶ Tr. 464:10-465:12 (Miessner).

APS customer requested a non-ratchet option, or even testified in support of the EFCA proposal, despite the freedom to do so under the Settlement. 193 This should come as no surprise. EFCA's optional rate is designed to promote a specific product and business model—one built on shifting costs between customers within the E-32 L class.

Another difference from the Commission's earlier adoption of NEM is that NEM advocates denied to the end that NEM caused significant unrecovered fixed costs, or that NEM resulted in a cost shift from participants to non-participants. But here, EFCA cannot and does not make any such denial. During the hearing, EFCA witness Garrett readily conceded that large commercial customers using his proposed optional rate should be included in the LFCR to minimize the loss of revenue from this so-called "revenue neutral" proposal. 194 Moreover, EFCA witness Garrett conceded that the LFCR only socializes the cost shift by spreading to all customers the cost responsibility that should have been born by large general service customers taking advantage of this rate subsidy. 195

2. EFCA's proposal will cause a substantial cost shift.

APS's E-32L class is particularly vulnerable to cost shifts. Customers in that class account for 10% of APS's total revenues, but only constitute significantly less than 0.1% of APS customers. 196 This means that each individual E-32L customer contributes a substantial amount to the grid's fixed costs, heightening the cost shift risk for each battery storage installation. Moreover, the small number of other E-32L customers onto which those unpaid fixed costs would be shifted, increases the consequence of any cost shift for each affected customer.

EFCA is silent on the precise cost shift figure, but it is possible to assess at least some of the risk to APS and other large commercial customers by using the proposed rates in Mr. Garrett's Rebuttal Settlement Testimony and comparing them to the rates

proposed by the Settlement. As EFCA witness Garrett testified, eliminating the ratchet requires that demand rates be increased by \$7 million.¹⁹⁷ Making the ratchet optional requires an even larger adjustment.¹⁹⁸

Eliminating off-peak demand charges could be even more significant. Off-peak demand revenue for the E-32L TOU class is 22% of the total demand revenue. Because the costs to be recovered through this off-peak revenue are driven by customer load during off-peak periods, they cannot be avoided through reduced on-peak consumption. Nonetheless, EFCA seeks to move all of this unavoidable, off-peak revenue to the on-peak demand charge. To the extent that battery storage customers reduce their *on-peak* consumption, they will avoid paying fixed costs tied to *off-peak* usage.

Severing the connection between bill savings and reduced grid costs is exactly why the cost shift occurs. EFCA claims that its proposal is "revenue neutral," yet this is not true. The moment that customers begin installing storage under EFCA's proposal—the precise result that EFCA seeks to incentivize—the customers will begin avoiding contributions to unavoidable fixed costs. Will all of these cost shifts occur immediately, or even before the next APS rate case? No, they will not. But then NEM started as a tiny pebble rolling down the mountain, and in less than a decade the pebble had grown into a powerful avalanche.

3. The risk of creating a new NEM is simply not worth it.

EFCA offers a "solution" to a non-existent problem. It is a "solution" we have seen before in the guise of promoting a specific technology through rate subsidies—

¹⁹⁷ Garrett Settlement Rebuttal Testimony, Tables 1 and 2 at 15-16, referencing APS Response to Data Request EFCA 31.5(c) in which APS provided the \$7 million calculation.

⁹⁸ Tr. 465:13-22 (Miessner).

¹⁹⁹ See Garrett Settlement Rebuttal Testimony, Table 2 at 16 (showing in the APS Proposed Revenue column that the off-peak charges are designed to generate \$2,171,728 of the total E-32L TOU class revenue of \$9,843,465).

²⁰⁰ See Miessner Settlement Rebuttal Testimony at 19.

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²⁰¹ Tr. 811:15-816:22 (Snook).

²⁰² Tr. 802:22-803:16 (Snook).

²⁰³ Tr. 422:8-15 (Miessner); Tr. 442:8-23 (Miessner).

²⁰⁴ Tr. 473:6-474:11 (Miessner); see also Miessner Settlement Direct Testimony at 19.

NEM. It is a "solution" that lacks any support from potentially affected customers or disinterested neutrals on the issue, such as Staff and RUCO.

EFCA's attempts to promote the business line of its most prominent member are clearly understandable from its point of view. But at what price in potentially unrecovered fixed costs and a new generation of shifted costs? The proposed Settlement Agreement solves many real problems facing APS and its customers. There is no need to create new problems by disturbing a rate structure for large commercial customers that is working as intended and has the broad support of those taking service under it.

4. APS's proposal offers a way to incentivize storage, but protect all other customers at the same time.

In contrast, the APS proposal as outlined in APS Exhibit 33²⁰¹ only places \$2 million at risk while maintaining the safeguards built into E-32 L—safeguards to which no customer affected by that rate has objected. APS's program will test whether battery storage technology consistently and reliably reduces peak demands, and also provide a means to assess the overall economics of the technology. But these assessments will occur under controlled circumstances in a manner similar to the proposed R-Tech program for residential customers.²⁰² And by incentivizing batteries through a transparent mechanism, the incentive can be reduced as market costs decline.

B. The E-32 L TOU ratchet and off-peak demand charge are cost-based and properly incentivize storage.

As noted in the Company's earlier discussion of unrecovered fixed costs and the cost shift, the ratchet serves a dual purpose of assuring cost recovery by the utility and promoting the recovery of those costs from the right group of customers. Similarly, the off-peak demand charge, although much lower than the on-peak charge (and appropriately so), recognizes that significant costs exist year round, and during both peak and off-peak periods of the day. Obvious examples include the transformer and

²⁰⁵ Tr. 474:1-11 (Miessner).

²⁰⁶ Tr. 802:22-25 (Snook); 803:1-11 (Snook).

²⁰⁷ Tr. 868:12-869:6 (Snook).

primary distribution capacity.²⁰⁵ In addition, the R-Tech residential rate contained in the Settlement Agreement has an off-peak demand charge as a safeguard to ensure the customer that causes a cost will pay the cost.²⁰⁶ Removing the off-peak demand charge from a more sophisticated, large commercial customer rate design would remove an essential safeguard and would be inappropriate.

1. The ratchet does not eliminate the incentive for storage.

EFCA is simply wrong in its conclusion that the ratchet eliminates the incentive to reduce demand. First of all, reductions in demand are universally accompanied by reductions in energy usage—something unaffected by the ratchet. Thus, customers will still receive some bill savings resulting from reduced energy usage. Second, the ratchet period is a rolling 12 months, such that reductions in demand occurring after the summer peak will result in savings the following summer on a more timely and predictable basis. Third, the ratchet emphasizes the importance of reducing summer demand, thus enhancing the price signal sent by an unratcheted rate such as proposed by EFCA. ²⁰⁷ In contrast, EFCA's proposed rate would reward off-peak savings at on-peak prices—hardly a benefit to non-participating customers and one of the more obvious flaws in NEM.

Finally, APS's E-32 L ratchet is only for 80% of the customer's peak demand imposed on the system during APS's peak summer months—and that is only in effect for the single year following that summer peak. Customers can install storage, reduce what they pay for demand by 20% in the first year, and achieve even larger savings in *all* subsequent years. Indeed, EFCA essentially admits that its complaint solely concerns the potential for first-year savings.²⁰⁸ But as discussed below, concerns about achieving first year savings are fundamentally business model issues, and rates should not be

²⁰⁸ See Garrett Settlement Rebuttal Testimony at 4.

designed to accommodate specific business concepts. And APS's proposal is a better alternative for addressing EFCA's first-year concerns.

2. First-year savings can be addressed through contract negotiations or APS's proposal, among other options.

EFCA's primary complaint is that ratchet inhibits first year savings from storage. What ratchets inhibit, however, are undeserved savings from reducing demand during non-summer months or for only part of the summer. As noted by APS witness Miessner, battery vendors can maximize first year savings by timing their installations to precede the summer or by structuring contracts to better match payments with savings. As APS witness Miessner testified, "customers could realize substantial first-year savings if they installed the unit prior to the summer billing period."

Other contractual options exist to mitigate EFCA's first-year savings complaint, including battery vendors (i) restructuring their charges so that the first year involves reduced or even zero payments; (ii) reducing their prices during the off-season; or, (iii) staging installations so that the first-year installation is smaller and only reduces demand by the 20% ratchet amount, with the second-year installation being larger. Vendors of high efficiency air conditioners face the same marketing challenge, but somehow manage to sell units during non-summer months, despite the delay in their customers receiving the benefits of that investment. Indeed, ACC witness Smith testified that customers simply need to understand the "risk" of ratchets, accept the kind of hurdle best resolved through contract negotiations, rather than through incentives buried in rate design.

APS's storage proposal would also address EFCA's concerns for first year savings by: (i) offering an up-front cash incentive; (ii) resetting a customer's demand that would be used to establish the ratchet when the customer installs storage based on

²⁰⁹ See Miessner Settlement Rebuttal Testimony at 15:17-22.

²¹⁰ See Miessner Settlement Direct Testimony at 19-22; see also Tr. 459:22-460:20 (Miessner).

²¹¹ Miessner Settlement Rebuttal Testimony at 16:1-3.

²¹² Tr. 459:12-21 (Miessner).

²¹³ Tr. 1065:12-22 (Smith).

the design criteria of the storage technology; and, (iii) providing a demand forgiveness once per year to address a circumstance where the equipment does not function as intended.²¹⁴

3. Ratchets offer other benefits that mitigate any limited downside asserted by EFCA.

Staff rate design witness Ralph Smith cited the advantages of demand ratchets at pages 22 and 23 of his Direct Settlement Testimony (Staff Exhibit 11). They include (i) mitigating any cost shift; (ii) promoting revenue stability; (iii) promoting equitable rate design; and, (iv) encouraging a more efficient use of the system:

. . . And based on your testimony, ratchets can mitigate a cost shift between customers to the extent utilities are unable to collect all of their fixed costs for serving a customer, is that correct?

That's usually the intended purpose of why a ratchet is put into the A. rate design.

And they promote revenue stability for the utility? Q.

A.

And they can promote more equitable rate design by allocating cost Q. on the basis of causation in the appropriate circumstances?

Correct.

And they can promote the more efficient and cost effective use of the system by improving load factor or encouraging customers to improve their load --

Encourage customers to improve their load factors, correct.²¹⁵

Mr. Smith reiterated these advantages under cross-examination from EFCA.²¹⁶ And although Mr. Smith noted that some customers do not like ratchets, he also noted that he has seen this dislike when, "due to an event that may have been very unusual and perhaps beyond [the customer's] ability to control," the customer's "battery doesn't operate during a peak period"217 or the customer is "relying on self-generation to supply a portion of their load and that generation should fail."²¹⁸

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²¹⁴ Tr. 458:6-12 (Miessner); Tr. 814:24-816:22 (Snook). ²¹⁵ Tr. 1051:23–1052:16 (Smith).

²¹⁶ Tr. 1040-48 (Smith). 27

²¹⁷ Tr. 1062:8-1063:1 (Smith).

²¹⁸ Tr. 1065:3-8 (Smith).

C. Commission decisions in the TEP and UNSE rate cases cannot guide a decision regarding APS's ratchet.

No Commission decision is binding precedent, and as Staff witness Abinah testified when asked about the ratchet decisions in the TEP and UNSE cases, "each case stands on its own merit." The evidence presented in this case makes clear that the recent TEP and UNSE rate case decisions do not strengthen EFCA's case to remove APS's E-32 L ratchet.

1. TEP and UNSE's ratchets are too different from APS's E-32 L TOU ratchet to offer a useful comparison.

The TEP and UNSE ratchets for what they call Large General Service or LGS customers are based on the highest demands during the preceding 11 months, which includes all the non-summer months. It also applies to non-peak hours of the day. ²²⁰ It were these two aspects of the UNSE ratchet that caused Fresh Produce Association of the Americas (a largely non-summer peaking UNSE customer) and Nucor Steel (a largely off-peak steel production company) to complain about the ratchet—an issue that EFCA did not even raise in the UNSE docket. ²²¹

Unlike the UNS ratchet, however, APS's E-32 L ratchet can only be established by demand usage during the summer on-peak period. Indeed, RUCO's witness in the TEP proceeding, Lon Huber, specifically called out the year-long ratchet period of TEP's proposed LGS rate in his critical remarks quoted extensively, if out of context, by EFCA witness Garrett.²²² Neither Mr. Huber nor RUCO has taken issue with APS's use of a summer-peak only ratchet for E-32 L.²²³

The Commission's decision in the TEP proceeding is similarly inapposite here. There, TEP sought to simultaneously create a new Medium General Service (MGS) class, ranging from 20 kW to 300 kW, and use a ratchet in the MGS rate design.²²⁴ The

²¹⁹ Tr. 1270:16-17 (Abinah).

²²⁰ Tr. 350:2-8 (Miessner).

²²¹ See Decision No. 75697 at 72-87.

²²² See Garrett Settlement Direct Testimony at 7; Garrett Settlement Rebuttal Testimony at 5.

²²³ Tr. 1246 (Garrett); see also RUCO Exhibit 5.

²²⁴ See Decision No. 75975 at 72-73.

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Commission criticized TEP's MGS ratchet proposal, saying it added "a level of complexity and unfairness to a class of customers who [were] new to demand charges."225 By contrast, APS does not seek to create a new "MGS" rate class. Nor does APS seek to impose a ratchet on customers with monthly loads as small as 20 kW. Instead, the average demand for customers in APS's E-32 L class ranges from 401 to 3,000 kW per month.

It is true that during Open Meeting, a Commission amendment modified the recommendation underlying Decision No. 75975 to order TEP to create an optional, non-ratchet rate for TEP's Large General Service class. 226 This amendment, however, did not generate much discussion, and was voted on without any discussion of the potential implications for other customers, including the inevitable cost shift that will result from removing ratchets. Moreover, the amendment did not remove other language in Decision No. 75975 that supports APS's position: "Ratchets might make sense for large customers which tend to have high load factors, but not for smaller customers, and especially not for customers who do not have prior experience with demand charges."²²⁷

The decision in the TEP rate case does not establish a strong Commission policy disfavoring ratchets, especially for larger customers. Instead, it suggests an incremental approach to ratchets that might support APS's battery incentive proposal as much as it supports anything. And although the Commission was critical of UNSE's ratchets in the UNSE proceedings, the primary basis for that criticism does not exist with APS's ratchets. Given the differences between the TEP and UNS circumstances and this proceeding, the Commission's decisions in TEP or UNS should be given little, if any, weight when assessing EFCA's proposal in this proceeding.

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²²⁵ Decision No. 75975 at 94.

See Decision No. 75975 at Ordering Paragraph 60.Decision No. 75975 at 94.

2. EFCA's proposal here is far more sweeping than the narrow decisions about ratchets in the TEP and UNSE cases.

It is important to note that in the TEP and UNSE electric rate cases, the sole focus was on the ratchet feature of large customer rates, as was EFCA's direct rate design testimony in this rate case. ²²⁸ It was only in pre-filed settlement testimony that EFCA proposed removing the declining block and off-peak demand rate structures. These two modifications, however, go much further than a discussion regarding seasonal demand ratchets, and *were never proposed, much less considered* in the TEP and UNS cases. In fact, the Commission ordered TEP to propose a non-ratcheted rate design, which is far different from the detailed, three-part proposal that EFCA seeks to impose on APS and APS's E-32 L customers. Moreover, eliminating the off-peak demand charge and the declining demand blocks essentially ensures that a cost-shift will occur, and greatly increases the potential magnitude of both that cost shift and the under-recovery of fixed costs by APS. The Commission decisions in the TEP and UNS rate cases cannot be a basis to adopt EFCA's sweeping proposals in this proceeding.

IV. THE AMI OPT-OUT PROPOSAL IS IN THE PUBLIC INTEREST.

APS's standard meter is an AMI meter. AMI technology is a foundational component of a modern electrical grid and critical for the Company to continue providing safe and reliable service while meeting our customer's changing needs. AMI technology also provides benefits to APS customers and is more than simply a way to measure electricity usage. 230

Nonetheless, if a customer opts out of standard AMI metering, they may take service with a digital meter.²³¹ The Agreement proposes an AMI opt-out program for residential customers that do not want AMI meters and request non-standard metering.²³² Through negotiations with parties, the Agreement adopts a lower upfront

²²⁸ See Garrett Direct Rate Design Testimony at 13.

²²⁹ See Bordenkircher Settlement Rebuttal Testimony at 4.

²³⁰ See Bordenkircher Settlement Rebuttal Testimony at 3.

²³¹ See Bordenkircher Settlement Rebuttal Testimony at 3.

²³² See Settlement Agreement at Section 30.

and monthly fee for the opt-out program than originally proposed in the Company's direct testimony.²³³ The program now includes an upfront fee of \$50 if the customer asks to replace an existing standard meter, and an ongoing monthly meter reading fee of \$5.²³⁴ The opt-out program is limited to customers served under a residential rate, excluding those with distributed generation.²³⁵

As discussed below, the AMI opt-out program is in the public interest and is a reasonable option for customers that do not want to be served with a standard meter.

A. AMI is a critical building block for a modernized electric grid.

Modernizing the electric grid begins with more timely and accurate information about its operation. In order for APS, and in fact the whole industry, to be in the best position to accept further expansion of renewable resources and other customer-sited technologies and choices, the utility must accurately understand the effects of those systems on the grid to which they are tied. For example, residential rooftop solar installations can alter distribution voltage levels and stability. To provide reliable service, APS must be able to manage voltage and power quality on its system, and AMI is an increasingly important tool for planning and managing the distribution grid as rooftop solar penetration increases. 238

Importantly, AMI provides system operators critical visibility into the day-to-day operations of the grid, including system loading and solar production.²³⁹ APS witness Scott Bordenkircher testified that AMI allows the Company to gain better insight and awareness of the "overall health and reliability of the grid."²⁴⁰ Because the AMI system includes communication networks and data management systems, it permits APS to increase overall efficiency, improve reliability and provide better service for its

²³³ See Miessner Direct Testimony at 58, see also Tr. 259:7-13 (Lockwood).

²⁵ See Miessner Settlement Direct Testimony at 12.
235 See Miessner Settlement Direct Testimony at 12.

²³⁶ Tr. 1037:15-19 (Smith); see also Bordenkircher Settlement Rebuttal Testimony at 4.

²³⁷ See Froetscher Direct Testimony at 11, Bordenkircher Direct Testimony at 3.

²³⁸ See Bordenkircher Direct Testimony at 7.

²³⁹ See Bordenkircher Settlement Rebuttal Testimony at 4.

²⁴⁰ Tr. 584:10 (Bordenkircher).

customers.²⁴¹ AMI is a foundational building block for APS to develop future advanced grid programs that will leverage this augmented system visibility and situational awareness.²⁴²

B. AMI technology benefits APS customers in numerous ways.

Beyond system-level benefits, AMI metering helps customers manage energy usage and reduce monthly bills by providing daily usage data that can be accessed on the Company's website, aps.com. During the hearing, Mr. Bordenkircher testified that by having more information provided through AMI metering, customers can "adapt their usage pattern, should they wish, and therefore potentially reduce their bill." Additionally, because these data are available, customers can sign up to receive individualized alerts regarding their energy usage and bill amounts, providing customer with even more control over their energy use. AMI. Bordenkircher further stated that in his own personal experience, "having the hourly information allows me to look at what have been my five highest hours of usage, and then between myself and my family we can talk about what we had running during that time or purposely chose to not run during that time." The opportunities stemming from customers having access to AMI data will only grow as more and more functionality becomes available.

Customers also benefit from the fact that a variety of functions that have historically been handled manually can now be handled remotely with AMI meters. AMI metering minimizes delays when a customer requests connect service, disconnect service, or rate plan changes because physical visits are not required with AMI. Additionally, AMI meters lower APS's operating costs, which lowers rates for customers. AMI also provides benefits that may not be immediately obvious to

²⁴¹ See Bordenkircher Settlement Rebuttal Testimony at 3.

²⁴² See Bordenkircher Direct Testimony at 7.

²⁴³ Tr. 604:15-21 (Bordenkircher).

²⁴⁴ See Bordenkircher Settlement Rebuttal Testimony at 3.

²⁴⁵ Tr. 606:17-23 (Bordenkircher).

²⁴⁶ *Id.* 604:22-605:7 (Bordenkircher).

²⁴⁷ Tr. 605:20-606:2 (Bordenkircher).

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²⁴⁸ See Bordenkircher Settlement Rebuttal Testimony at 3.

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²⁵³ See Bordenkircher Direct Testimony at 7.

customers. AMI metering provides the Company with the ability to measure power quality, ensuring that electricity delivered to customers is within the correct voltage range.²⁴⁸ Further, Mr. Bordenkircher testified that AMI meters also transmit a signal when meter tampering is attempted, allowing APS to correct the situation quickly to reduce energy theft and fraud.²⁴⁹ Lastly, a reduction in truck rolls as a result of AMI also reduces carbon emissions, which benefits all customers.²⁵⁰

V. **ARGUMENTS AGAINST** THE **AMI** PROPOSAL SHOULD REJECTED.

Three parties make arguments against adopting the AMI opt-out program. At the hearing, Messrs. Woodward and Gayer, representing themselves, claimed that AMI is unsafe, unsecure, violates customer privacy, and could start fires. Their arguments, however, fundamentally concern AMI itself, not the opt-out program. ²⁵¹ APS decided to move to AMI meters as the standard meter offering more than a decade ago, during which the ACC has found the Company's investments to be reasonable and prudent in at least two previous cases.²⁵² The Company did not propose removing or making any bulk changes to its AMI system in this case, and no party has offered sufficient evidence to evaluate the cost or consequences of doing so.

Instead, the Agreement provides a discrete means for customers to opt-out of AMI if they so choose. Discrete opt-outs will meet the desires of those few customers who do not want to have AMI meters, while at the same time preserving the significant benefits of AMI for APS's remaining customers as described above.²⁵³ Messrs. Woodward and Gayer claim that the AMI opt-out program is discriminatory. But it is not. It is cost-based. And despite the advantages that AMI meters provide for all customers, the Agreement proposes a reasonable opt-out program for those customers

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²⁴⁹ See Bordenkircher Settlement Rebuttal Testimony at 3-4; see also Tr. 636:24-637:5 (Bordenkircher). ²⁵⁰ Tr. 606:6-12 (Bordenkircher).

²⁵¹ See Woodward Settlement Direct Testimony; Gayer Settlement Direct Testimony; and Ferre Settlement Direct Testimony.

²⁵² See Decision Nos. 73183 (May 24, 2012) and 71448 (Dec. 30, 2009).

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who do not want service through AMI meters, and should be approved.²⁵⁴ The evidence does not support the assertions of Messrs. Woodward and Gayer, and their arguments should be rejected.

A. Security and privacy of customer information is a top priority for the Company.

The argument that AMI meters jeopardize the security and privacy of APS's customers is unfounded. Protecting customer information is a critical priority for APS, and to do so, APS complies with all Commission regulations, approved rate and service schedules, state statutes, and federal regulations regarding privacy and security of customer information.²⁵⁵ Moreover, no party offered evidence that customer information had actually been compromised.

Just as with privacy, APS has been maintaining the cyber security of its critical systems and takes the security of its customers very seriously. APS has deep and extensive experience in this area and carefully assesses and mitigates cybersecurity risks, including those that may be brought about by the addition of new technology. Consistent with best industry practices, APS's security protocols are constantly reviewed both internally and by third parties, and are updated as necessary to protect against emerging threats.²⁵⁶ APS takes all necessary precautions to maintain the security and privacy of its customers with and without AMI, assertions to the contrary notwithstanding.

В. There is no evidence that AMI meters have caused fires in APS's service territory.

Mr. Woodward's argument that AMI meters have caused increased fires in APS's service territory is unsubstantiated. Mr. Bordenkircher testified that "within the Company's service territory, which includes over 1.3 million meters, 12 fires have been alleged to have been caused by APS installed Elster AMI meters."257 And of those 12

²⁵⁴ See Settlement Agreement at Section 30.

²⁵⁵ See Bordenkircher Settlement Rebuttal Testimony at 3-4.

²⁵⁶ See Bordenkircher Settlement Rebuttal Testimony at 5.

²⁵⁷ Tr. 666:16-19 (Bordenkircher).

alleged fires, a root cause analysis was conducted for each and it has been determined that something other than the meters caused the fires.²⁵⁸ The evidence simply does not support Mr. Woodward's claim.

C. APS's AMI meters meet all health and safety regulations.

Mr. Woodward's arguments that AMI meters cause negative health effects through "noise" on electrical wavelengths and dirty electricity are misplaced. The evidence in the record shows that AMI meters are only one of many sources of noise. In fact, Mr. Erik Anderson testifying on behalf of Mr. Woodward stated that "[t]here are many different types of things that can cause noise on the line." He further testified that any electronic device with a switch mode power supply can cause noise similar to an AMI meter. This admission concedes that devices other than AMI may be to blame for any alleged noise. Thus, any allegations regarding noise or dirty electricity may be properly disregarded.

Mr. Woodward's second expert, Dr. Milham, made a similar admission when he testified that many household electronics cause the same health issues as AMI. He testified that "all our modern electronic junk runs on DC, every computer, the little chargers for your cell phone . . . compact fluorescent lights are very, very bad." Dr. Milham went on to state that variable frequency drives, variable speed pool pumps, or variable speed motors on an air conditioner are all bad for one's health. Mr. Woodward's own witnesses shatter any supposed causal link between AMI and health concerns.

Additionally, the radio frequency (RF) utilized by AMI is regulated by the Federal Communications Commission (FCC). Mr. Bordenkircher testified that "the FCC regulates the safety of transmitting devices, and our meters comply with those

²⁵⁸ See Bordenkircher Settlement Rebuttal Testimony at 5.

²⁵⁹ Tr. 790:8-13 (Anderson).

²⁶⁰ Tr. 791:6-9 (Anderson).

²⁶¹ Tr. 945:8-946:14 (Milham).

 $[\]frac{27}{262} \frac{\text{Tr.}}{Id.}$

²⁶³ *Id*.

regulations."264 Further, the Commission has spent over three years performing an 1 2 3 4 5 6 7

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were not likely to harm public health. 267 D. Benefits of APS's AMI meters far outweigh the costs.

inquiry regarding the health, safety and functionality of advanced meters.²⁶⁵ As part of

that inquiry, the Commission requested that the Arizona Department of Health Services

(ADHS) conduct a study regarding advanced meters. ²⁶⁶ The resulting report published in

November 2014 concluded that the advanced meters in use in Arizona (by APS and

others) were operating within the Federal Communications Commission's standards and

Mr. Woodward's argument that the Company's AMI is not cost effective is

9 10 flawed. Mr. Woodward cites one page from a 2015 shareholder slide presentation on an update to APS's AMI system as the basis for his argument. 268 A review of Woodward

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Exhibit 10, however, reveals that the single slide addressed only one category of savings attributable to AMI, and did not purport to be a comprehensive conclusion on AMI's benefits. Indeed, Mr. Woodward acknowledged during the hearing that APS had provided a cost/benefit study on the Company's AMI metering in a data request that demonstrated a positive present value for AMI.²⁶⁹ Mr. Woodward chose not to use or cite this study, and did not attempt to rebut the various benefits and costs savings that result from installing AMI identified in that study. ²⁷⁰ The fact is that APS's AMI meters provide a multitude of benefits to customers that far outweigh the investment. That Mr. Woodward selectively relied on a single figure that only included savings from avoided field orders to connect or disconnect meters undermines the credibility of Mr.

Woodward's claims.²⁷¹

²⁶⁴ Tr. 743:13-15 (Bordenkircher).

²⁶⁵ See Docket No. E-00000C-11-0328. 25 ²⁶⁶ *Id*.

²⁶⁷ See Bordenkircher Settlement Rebuttal Testimony, Attachment SBB-1SR at 29. ²⁶⁸ Tr. 956:21-24 (Woodward), see also Woodward Exhibit 10.

²⁶⁹ Tr. 974:20-975:10 (Woodward).

²⁷⁰ Tr. 971:7-24 (Woodward). ²⁷¹ Tr. 970:9-18 (Woodward).

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E. The Agreement's opt-out proposal is not discriminatory.

Lastly, Messrs. Woodward and Gayer failed to substantiate their allegations that the opt-out proposal adopted in the Agreement discriminates against customers by requiring a fee to participate. When customers voluntarily decide to opt out of AMI, APS incurs more cost to provide the same level of service that APS provides to customers with AMI.²⁷² Anecdotal commentary cannot overcome the weight of APS's careful investigation into its AMI-related costs.

Mr. Woodward cites A.R.S §40-334 as support, but this statute only prohibits public service corporations from establishing or maintaining any "unreasonable difference as to rates, charges, service, facilities, or in any other respect, either between localities or between classes of service" (emphasis added). The law permits utilities to establish "reasonable" differences as to rates and charges. This includes charging residential and non-residential customers differently, and charging customers different rates based on the different costs incurred to provide them service, such as charging AMI opt-out customers fees to collect the costs incurred to provide service without AMI. Contrary to Messrs. Woodward and Gayer's assertions, the opt-out proposal's eligibility limitations are reasonable and not discriminatory.

1. The AMI opt-out is reasonably limited to residential customers.

This distinction stems from the difference between commercial and residential customers and their usage. APS witness Bordenkircher testified that commercial customers are ineligible for the opt-out program because, "[c]ommercial customers tend to be some of our largest customers."273 Because one of the main purposes for AMI metering is to increase visualization for a modernized grid, losing large gaps in data from larger commercial customers can be particularly difficult. APS witness Bordenkircher further testified that allowing large commercial customers to opt-out "has the potential for harming our overall reliability, including equipment overloads."274

²⁷² See Lockwood Settlement Rebuttal Testimony at 9.

²⁷³ Tr. 587:24-25 (Bordenkircher). ²⁷⁴ Tr. 588:1-3 (Bordenkircher).

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Additionally, small commercial customers are also better served by AMI. APS witness Lockwood testified that small general service customers can change out frequently, and AMI "allows us to turn on and turn off remotely, and provides more information that our business customers often want to manage their business."275 It is also important to note that of the twelve settling parties that represent various commercial or industrial interests, none took issue with AMI opt-out eligibility during the hearing.

2. AMI meters provide DG customers information, and help with DG-caused reliability and planning needs.

It is imperative to have production data from all rooftop solar systems to maintain reliability and load forecasting accuracy.²⁷⁶ And AMI is vital to providing APS with metered data to support critical grid planning and operations. As APS witness Bordenkircher stated, "[i]t would not be timely or practical to collect this data manually, and significant lags in obtaining this information could complicate distribution system configuration and capacity planning, potentially resulting in outages or equipment overloads."²⁷⁷ He further testified that it is because of reliability concerns that "we have proposed as part of this comprehensive settlement agreement that the AMI opt-out program does not allow DG customers to opt out."278

Importantly, AMI metering also provides timely energy usage and demand information to customers.²⁷⁹ This is especially important for customers that adopt distributed technologies, like rooftop solar, so that the customers have the best opportunity for bill savings. 280 It is vital to have a grid that can integrate all home energy technologies, such as distributed generation, energy storage, and demand response.²⁸¹

AMI metering is fundamental to enabling this customer choice while mitigating impacts

²⁷⁵ Tr. 155:4-10 (Lockwood).

²⁷⁶ See Bordenkircher Settlement Rebuttal Testimony at 7.

²⁷⁸ Tr. 587:3-9 (Bordenkircher).

²⁷⁹ See Bordenkircher Settlement Rebuttal Testimony at 7.

²⁸¹ See Bordenkircher Settlement Rebuttal Testimony at 7-8.

²⁸² Tr. 159:2-160:1 (Lockwood).

²⁸³ Tr. 1265:9-11 (Abinah); *see also* Hendrix Settlement Direct Testimony at 2.
²⁸⁴ Tr. 1092:23-1093:16 (Tenney), *see also* Lockwood Settlement Rebuttal Testimony at 8.

²⁸⁵ Tr. 1165:11-17 (Schlegel).

²⁸⁶ Tenney Settlement Direct Testimony at 9.

to reliability. APS witness Lockwood testified that "solar customers are unique because they actually produce energy and deliver it onto the grid, and as the number of solar customers grows, it's imperative that we have more information about what is happening in the grid real-time so that we can manage our system safely and effectively." Lastly, although there are numerous parties representing solar interests in this case, no solar party voiced opposition to the AMI opt-out proposal nor advocated that it be available for DG customers at the hearing.

VI. THE PROCESS WAS FAIR AND INCLUSIVE AND LITIGATION IS NOT IN THE PUBLIC INTEREST.

Resolving this matter through settlement, rather than protracted litigation, avoids expending significant resources to achieve a suboptimal outcome. Although a litigated outcome is at times the only alternative, it almost always results in a binary, win/lose conclusion that does not reflect multiple perspectives. And through settlement, parties can obtain outcomes that they might not be able to obtain in a litigated case, such as "concessions by the company" as one intervenor noted in relation to this Settlement, or "the brokered peace relating to roof-top solar" as RUCO noted. Despite the inherent benefits of settlement, a handful of parties criticized the settlement process and the fact of the settlement itself. These criticisms are not supported by the evidence and reflect a misunderstanding of the Commission's process.

A. The Settlement process was fair, open and inclusive.

Settlement discussions in this case began in early February and concluded in late March. All intervenors were provided notice of the settlement meetings and most participated.²⁸⁷ Indeed, the discussions needed to be held in the ACC Hearing Rooms, rather than the Commissioners conference room where such discussions are routinely

With two exceptions for pro per intervenors, those parties that did not participate in the settlement discussions, such as Tucson Electric Power Company, were not generally active in the proceeding.

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²⁸⁸ Tr. 1274:16-19 (Abinah).

A. We were.

23 See Walker Settlement Direct Testimony at 2; Abinah Settlement Direct Testimony at 2.

open and transparent:

the public interest.²⁹⁶

process in this case?

held, in order to accommodate the large number of intervenors who participated. The

opportunity to make their concerns known, and everyone negotiated in good faith.²⁸⁹

Despite significantly divergent positions and interests, the parties engaged in open.

transparent, and arm's-length negotiations over the nearly three month process.²⁹⁰

Several witnesses agreed, testifying that the process was fair, including AURA witness

Patrick Quinn, ²⁹¹ ACAA witness Cynthia Zwick, ²⁹² AIC witness Gary Yaquinto, ²⁹³

RUCO witness David Tenney, 294 and ACC Staff witness Abinah. 295 As a result of this

robust process, the settling parties testified that the outcome was just, reasonable, and in

manner, and that parties had the opportunity to be heard and have their issues fairly

considered. AARP's representative John Coffman, testified that the "settlement process

allowed for a thorough and comprehensive discussion of all major issues."297

Additionally, Jeff Schlegel for SWEEP stated, "I found the settlement discussions to be

open, transparent, and inclusive of all parties who desired to participate."²⁹⁸ Lastly, even

ED-8/McMullen witness Jim Downing acknowledged the fact that the negotiations were

Q. [Was ED8 and McMullen] allowed to participate in the settlement

Even certain non-settling parties agreed that the process was conducted in a fair

Although not all the parties ultimately signed the Agreement, all parties had the

then-acting Utilities Director, Mr. Abinah, led the settlement discussions. 288

²⁹⁰ See Kobor Settlement Direct Testimony at 1; Hendrix Settlement Direct Testimony at 2.

^{24 291} See Quinn Settlement Direct Testimony at 2; Tenney Settlement Direct Testimony at 2.

Zwick Settlement Direct Testimony at 3.
 Yaquinto Settlement Direct Testimony at 2.

²⁹⁴ Tr. 1094:5-1095:3 (Tenney).

²⁹⁵ Tr. 1281:2-1282:13 (Abinah).

²⁹⁶ See Tr. 1266:6-16 (Abinah); Tr. 1274:16-19 (Abinah); see also Higgins Settlement Direct Testimony at 2.

²⁹⁷ See Coffman Settlement Direct Testimony at 3.

²⁹⁸ See Schlegel Settlement Direct Testimony at 2.

Q. So when negotiations went on, they were invited to participate in those negotiations, correct?

A. Yes.

Q. And those negotiations, would you characterize them as being open and transparent negotiations?

A. I think so, yes.

Q. And ED8 and McMullen had an opportunity to present its issues for consideration in that settlement process, correct?

B. Criticisms of the Settlement process fall short.

A few discrete individual parties have suggested that they had concerns regarding the settlement process. Some contend that there is something wrong with starting the settlement process by discussing the revenue requirements issues first, followed by the rate design issues once that testimony was filed. Others complain about the room and seating arrangements. Others oppose the very notion of settlement.

These general aspersions about the settlement process should not be afforded any weight. First, although the discussions were initially bifurcated into separate revenue requirement and rate design discussions, this was largely because of the complex rate design issues raised by rooftop solar, among other items, and the reality that not all parties might be interested in both aspects of the case. Moreover, there was no separate revenue requirement settlement. Instead, every party had ample opportunity to consider the entire settlement package as a whole.

Second, many participants have testified that the process was fair, open, and transparent, even some who nonetheless opposed the Settlement. This suggests that complaints about the process might be colored, if not driven, by dissatisfaction with the Settlement outcome, not the process itself. The few parties who oppose discrete issues in the Settlement Agreement were provided the opportunity to fully and fairly present their concerns in written testimony and at the evidentiary hearing, obviating any potential concerns about the process.

Lastly, to obtain a settlement of a large, multi-party case with 40 parties requires by its nature extensive dialogue and hard work between and amongst parties. There is

²⁹⁹ Tr. 575:12-576:5 (Downing).

nothing procedurally or substantively improper about one-off meetings that don't involve all parties, or meetings among smaller subsets of parties with unique interests. Settlements are not open meetings during which elected officials deliberate. Instead, they are confidential negotiations between litigants with the outcome of those negotiations being made public and fully vetted in an evidentiary hearing. The testimony has made clear that all parties were provided the opportunity to raise and discuss any issues they so chose during the Settlement negotiations, and had the opportunity to present their evidence at the hearing. Even Mr. Albert Acken, representing the Districts, acknowledged that they had the opportunity to present evidence in this case, stating that "we chose not to introduce direct testimony . . . [a]nd that is absolutely the choice we make as to how to present our case." Criticisms regarding the process are not only unsupported by the evidence, but overlook the role of settlements in ACC proceedings and the important safeguards built into this administrative process that protect the public interest.

VII. REFUNDING DSM FUNDS MITIGATES FIRST YEAR RATE IMPACTS AND WON'T UNDERMINE EXISTING DSM PROGRAMS.

To mitigate the first-year impact of any rate increase ordered in this proceeding and return customer money that is not currently being used, the Settling Parties agreed that \$15 million collected through the DSMAC should be refunded to customers. The \$15 million represents funds that have been collected, but have not yet been spent or allocated for use in the DSM budget. These funds are in the DSMAC balancing account and the Settling Parties agreed that the money should be returned to customers now, rather than wait for a subsequent proceeding. Whether to do so is always within the

Tr. 45:2-7 (Boehm); Tr. 74:17-21 (Van Cleve); Tr. 184:20-185:7 (Lockwood); Tr. 722:12-23 (Coffman); Tr. 906:18-20 (Gayer); Tr. 988:8-10 (Woodward); Tr. 1164:19-25 (Schlegel); see also Lockwood Settlement Direct Testimony at 3-4; Coffman Settlement Direct Testimony at 3; Zwick Settlement Direct Testimony at 3; Yaquinto Settlement Direct Testimony at 2; Quinn Settlement Direct Testimony at 2; Walker Settlement Direct Testimony at 1-2; Tenney Settlement Direct Testimony at 2; Abinah Settlement Direct Testimony at 2-5; Kobor Settlement Direct Testimony at 1.

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³⁰² See Decision No. 75323 at 17.

³⁰³ See Coffman Settlement Direct Testimony at 4-6; Schlegel Settlement Direct Testimony at 10. ³⁰⁴ See Lockwood Settlement Rebuttal Testimony at 9-10.

Commission's discretion. But refunding the money now would provide a degree of gradualism for any rate increase ordered in this matter.

Contrary to assertions put forth by SWEEP, the Commission has not decided how these funds should be used. Nor has the Commission allocated the \$15 million for use in any future DSM budget. See Decision Nos. 75679 (Aug. 5, 2016) and 75323 (Nov. 25, 2015). Instead, the procedural language that SWEEP relies upon only states that using the over-collected funds to reduce the DSMAC "shall be considered as one option." 302

Finally, using these funds to mitigate the rate increase does not impact existing DSM programs or customers. The approved budget for 2016 has been fully funded. And to date, the Commission has not made a decision on APS's proposed 2017 DSM Implementation Plan or budget. To the extent needed, the Commission has the ability to modify the level of the DSMAC to collect sufficient funds to accomplish the Commission's priorities.

VIII. THE 90-DAY TRIAL PERIOD FOR RATE AVAILABILITY BALANCES CUSTOMER CHOICE AND MODERNIZING RATES.

Paragraph 19.1 of the Agreement details the transition to the new rates under the Settlement. It provides that after May 1, 2018, new customers consuming more than 600 kWh a month will take service under a time-of-use rate (TOU-E) or a three-part time-ofuse with demand rate (R-1 or R-3) for 90 days. 303 After this 90-day trial period, the new customer can opt to take service under R-Basic.

The goal of Paragraph 19.1 is to achieve a balance between modernizing rates and preserving customer choice.³⁰⁴ The Settlement does not modernize APS's rate structure, but does make progress towards doing so through this provision. The 90-day trial period exposes customers to modern rates that are time and demand-differentiated. At the same time, it still recognizes the importance of customer choice by: (i) not initiating the 90-day trial period until May 1, 2018; and (ii) permitting customers to

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³⁰⁵ Tr. 172:21-173:3 (Lockwood). ³⁰⁶ Tr. 169:21-170:7 (Lockwood); Tr. 858:19-860:14 (Snook).

³⁰⁷ See Settlement Agreement at Paragraph 19.1.

return to non-time sensitive, two-part rates that have a flat rate for energy. As APS witness Ms. Lockwood testified: "I think the foundation of this 90-day trial period is balancing the interest of an individual customer and what that customer would like to see and the . . . benefit[s to] all customers by moving to advanced rates."305

The data show that a significant majority of APS customers will save money on these modern rates, and that these savings occur before customers try to modify their behavior and shift usage into off-peak periods with lower rates. 306 Nonetheless, AARP and SWEEP oppose the 90-day trial period. Yet neither party offered credible evidence supporting their opposition. Instead, they assert that customers should have choices, including the choice of a taking service under a flat rate going forward. Their assertions are misplaced, and do not consider the importance of modernizing rate design or how customer rate choices impact all customers and the system as a whole.

Customers will still have sufficient options and choices under the rate structures agreed to by the settling parties. Between the rate effective date and May 1, 2018, all customers have the choice of remaining on their current rate or switching to any new rate for which they are eligible. After May 1, 2018, the flat rate, R-Large, will be frozen and closed to new customers. New customers whose annual usage will be above 1,000 kWh per month must select either TOU-E, R-1, R-3 or R-Tech if they qualify.³⁰⁷ Thus, similar to today all residential customers without distributed generation will have a minimum of three rate plan choices. Very small customers, those whose average monthly usage is 600 kWh or below, are exempt from the 90-day trial period. This class of customers are less likely to benefit as much from time differentiated or demand rates due to their very low usage. Keeping this low-usage option for the smallest of customers protects many limited-income customers, apartment dwellers, and other low usage customers.

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³¹⁰ See Wilde Direct Testimony at 12.

In addition to the flexibility provided to customers in the Settlement, the 90-day trial also seeks to accomplish real progress in modernizing rates for the benefit of all customers. When customers react to rates that are time-differentiated, and in particular rates with demand components, they shift load to off-peak periods, taking service when there is excess supply and capacity. This not only permits short-term cost savings with lower fuel costs, but also the possibility that APS can avoid building new infrastructure to meet growing peak demand.³⁰⁸ It is important to recognize the choices of individual customers, but that recognition must be balanced with the resulting impacts for all customers. The Settlement does not adopt APS's desired outcome—universal, timedifferentiated demand rates for all customers. Nor does it adopt the outcome sought by others—no change to rate design and all customers can continue to take service under the same rate they can select today. Instead, the 90-day trial period is a compromise designed to achieve a balance and, in APS's opinion, is in the public interest.

IX. THE 3-8 ON-PEAK TIME PERIOD IS EVIDENCE BASED AND BETTER FOR CUSTOMERS THAN CURRENT ON-PEAK PERIODS.

Under the settlement, APS "will have fewer on-peak hours" and on-peak hours "that are aligned with APS's highest peaks and costs." The Settlement will also add more off-peak holidays. This is a significant reduction from the current rate schedules which have on-peak periods of noon to 7 p.m. and 9 a.m. to 9 p.m.³¹⁰ The (pre-Settlement) Direct Testimony of APS witness James Wilde demonstrates the need to shorten the existing on-peak time frames and extend the period further into the evening hours:

Put simply, the current TOU on and off-peak periods send the wrong price signal at the wrong time. They incent customers to conserve energy midday and early afternoon when customers demand and wholesale prices are low and energy is abundant on the regional system, and fail to encourage

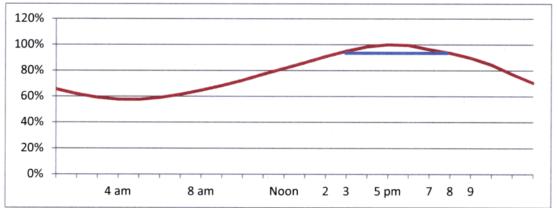
³⁰⁸ See Miessner Settlement Rebuttal Testimony at 12-13.

energy and demand reductions in the evening hours when wholesale prices are high and system demand is peaking.³¹¹

Mr. Wilde further testified that "[i]n non-summer months particularly, the peak is generally expected to occur between 7 p.m. and 9 p.m." 312

During the hearing, APS witness Mr. Miessner further explained that APS has "a very broad peak." In other words, during the summer months APS's load often remains within 5% of the peak hour for 4-5 hours. The result is that APS has long, flat on-peak time periods that must run later into the evening. Figure 1 in Mr. Miessner's Settlement Rebuttal Testimony demonstrates APS's broad summer peak.

Figure 1: APS System Summer Peak Hours



In addition, the heat map in Figure 2 shows that this trend will only become more pronounced going forward, with the darkest red showing the periods of highest load over the 2020 to 2035 period.

³¹¹ *Id.* at 13-14.

 $^{^{312}}$ *Id.* at 14.

³¹³ Tr. 405:25-406:3 (Miessner).

³¹⁴ See Miessner Settlement Rebuttal Testimony at 9.

Figure 2: APS System Peak Hours

Time of Day Relative Energy & Capacity Heat Map Levelized 2020 to 2035

	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	3.00		PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM
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Despite this data, SWEEP contends that the proposed 3-8 p.m. on-peak time period will be inconvenient and unnecessarily cause high bills for consumers.³¹⁵ SWEEP posits that a shorter window of 4-7 p.m. would be more customer-friendly, and that the peak today is closer to 7 p.m. Such arguments have a superficial appeal, but they are not consistent with system needs and costs.

First, APS has established that given its broad peak, loads remain very near peak levels (within 5%) until 8-9 p.m. in the evening and as demonstrated above, the record clearly supports a peak period from 3 p.m. to 9 p.m. Perhaps more importantly, this late-peak trend is going to continue. Time-of-use periods should not be set looking backward, but instead reflect anticipated conditions. Forward-looking time-of-use periods maximize the advantage that results when customers shift load off-peak—namely that APS might be able to avoid, or at least delay, constructing new infrastructure if a sufficient number of customers fundamentally change their usage. The

Tr. 405:24-406:5; see Miessner Settlement Rebuttal Testimony at 9; see also Figure 2 above.

During the hearing, AARP joined in SWEEP's opposition to the 3-8 on-peak period, but it offered no separate evidence in support of its position. Tr. 697:9-18.

existing peak is already served by existing infrastructure. Shifting load off of the existing, retrospective peak does not provide the deferral and delay-related benefits that accrue with a well-designed, prospective time-of-use period. Forward-looking time-of-use periods also prevent the need to change peak periods in every rate proceeding, minimizing the need to extensively re-educate customers each time.

Second, the proposed time-of-use period is much shorter than APS's existing on-peak periods, and customers have proven they have the ability to adapt and manage on these rates. For example, APS has over 570,000 customers on its current time-of-use and demand rates, and they are the most popular for customers signing up for service. APS believes that customers can and will respond to price signals in a meaningful manner.

Third, if customers need to use energy during on-peak periods, the rate should properly align with the cost of providing them energy during the on-peak time. Setting an on-peak period that does not reflect the actual peak will only provide customers a price signal to shift their load within the peak period. Usage shifts within the peak period do not reduce system costs, and ultimately undermine the entire purpose of an on-peak period in rates.

Finally, the agreed-upon rate designs are carefully crafted to achieve the stated amount of revenue and still preserve the economics of rooftop solar. Any change to the on-peak periods has the potential to disrupt this careful balance, with cascading rate-design implications that will significantly undermine the result desired by numerous parties, and particularly the solar intervenors.

X. THE SETTLEMENT AGREEMENT'S BASIC SERVICE CHARGES ARE REASONABLE, COST-BASED, AND FURTHER GOOD RATE POLICY.

If adopted, the Agreement will reduce BSCs for more than 50% of APS's residential customers.³¹⁸ Specifically, the Agreement will reduce the \$17 monthly BSCs

³¹⁷ See Derstine Direct Testimony at 10.

³¹⁸ Tr. 299:19-300:18 (Lockwood); Tr. 1153:15-21 (Schlegel).

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currently paid by customers on APS's TOU and demand rate to \$13.319 And instead of the \$24 that APS requested as a higher monthly BSC for many customers in its initial application, the only increase will be from the \$8.67 paid by current E-12 customers to \$10, \$15, and \$20 under the new R-XS, R-Basic, and R-Basic Large rates, respectively, depending on their usage level. Each of these BSC levels is well within any cost basis and further good rate design policy.

A. The Settlement BSCs are reasonable and cost-based.

APS witness Leland Snook testified that APS's cost structure warrants a basic service charge of \$28.320 In other words, APS's incurs approximately \$28 per month in fixed costs to serve its customers as measured by the Basic Customer Method. 321 Thus, any BSC below \$28 is justified by cost. That the Settlement proposes BSCs below \$28 is not an indication that the Settlement BSCs are improper, but instead that the agreedupon BSCs are within a cost basis and reflect compromises with other parties. Indeed, although APS witness Snook testified that applying a straight basic customer method would result in a \$28 BSC, the Commission's policy is to not apply a particular BSC method, but instead use both the basic customer and minimum system methods to inform Commission policy decisions. 322

In addition to being cost-based, the significant BSC reductions, and modest increases, support a finding that the Settlement BSCs are reasonable. As witnesses testified, the Settlement would reduce BSCs for the majority of APS's residential customers.323 Certain BSCs do increase under the Settlement, but those increases are relatively modest, and the only rate with a higher increase—R-Basic Large—is for those customers who consume more electricity (over 1,000 kWh per month).

³¹⁹ Tr. 389:10-17 (Miessner); Tr. 798:9-14 (Snook); see also Quinn Settlement Direct Testimony at 5; Tenney Settlement Direct Testimony at 8.

³²⁰ Tr. 802:15-17 (Snook).

³²¹ *Id.*; see also Tr. 845:19-22 (Snook). 322 Tr. 890:20-25 (Snook).

³²³ Tr. 299:19-300:18 (Lockwood); Tr. 1153:15-21 (Schlegel); Tr. 709:24-25 (Coffman); see also Tenney Settlement Direct Testimony at 8.

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In all circumstances, customers receiving an increase to their BSC can opt to receive service under the new TOU-E rate or a time-based demand rate, all with BSCs of \$13. These lower BSCs incentivize customers to leave R-Basic Large, which has a BSC of \$20.³²⁴ As acknowledged by SWEEP witness Schlegel, TOU-E provides customers opportunities to save money:

Q: . . . One of the ways in a TOU rate that customers can control their bill is by reducing their total kilowatt hours, correct?

A: That's correct.

Q: And also, they can control their bills in a TOU rate by shifting some of their rate from an on-peak hour to an off-peak hour, correct?

A: That's correct.

Q: And then under the settlement structure that we have here in this case, they can also lower their basic service charge compared to the traditional volumetric rate, correct?

A: ... you mean from the R-Basic rate ... to the TOU-E from \$15 to \$13, that's correct. 325

Indeed, most customers will save money each month by moving to TOU-E.³²⁶ Mr. Schlegel also acknowledged that customers taking service under one of the time-based demand rates have similar opportunities to save money:

Q: For such a rate, customers would also have several ways of controlling their bill. For example, they would be able to reduce their peak kilowatt demand, correct?

A: They would.

Q: And they could also reduce their total kilowatt hours, correct?

A: Correct.

Q: And then as with the TOU, they could shift some of their usage from on-peak to off-peak hours, correct?

A: Correct.³

Finally, to the extent that the Settlement BSCs do cause strain on low-income customers, the Settlement increases and simplifies low-income assistance to better assist this segment of customers.³²⁸

The Settlement BSCs reflect a compromise that recognizes the policy position taken by each party. The Settlement BSCs are a function of consensus, promote modern

³²⁴ See Settlement Agreement at Paragraph 17.3.

³²⁵ Tr. 1151:4-19 (Schlegel).

³²⁶ Tr. 302:15-22 (Lockwood). ³²⁷ Tr. 1152:5-15 (Schlegel).

³²⁸ See Settlement Agreement at Section XXIX.

rate design, and are consistent with Commission decisions in the recent TEP and UNS rate proceedings.³²⁹ Although no settlement will satisfy every party with regards to BSCs, the Settlement BSCs in this proceeding come close.

B. The non-settling parties' BSC objections overlook fixed costs and would risk exacerbating the cost shift.

Two parties—AARP and SWEEP—raised concerns about the Settlement BSCs.³³⁰ The first concern is that the Settlement BSCs would reduce customers' incentive to conserve. Other than simple statements, however, this argument was not explored in depth during the hearing. Moreover, to the extent the facts support a BSC of \$28, the Settlement offers far more conservation that the evidence would suggest. Finally, the argument regarding conservation overlooks that the majority of customers would pay a lower BSC under the Settlement, suggesting that on balance, the Settlement achieves more conservation than the status quo. To the extent that further discussions regarding conservation should occur, APS submits that those discussions are better held in the context of dockets designed to set policy, such as APS's Demand Side Management proceedings.

SWEEP also asserts that the Settlement BSCs are not cost based, and that APS customers should pay a BSC of approximately \$8 per month. SWEEP's analysis, however, is flawed. It also overlooks the serious policy consequences if BSCs plummeted to \$8 across the board.

1. SWEEP's proposed BSC level does not account for fixed costs actually incurred to serve customers.

In calculating what BSC APS customers should pay, SWEEP excluded two key types of facilities: the service drop and customer facilities.³³¹ Indeed, SWEEP witness Schlegel admitted that the Settlement R-Basic rate would not recover all of APS's fixed

³²⁹ Tr. 342:16-18 (Miessner); see also Tenney Settlement Direct Testimony at 9.

³³⁰ AARP did not raise concerns regarding the \$20 BSC for the new R-Basic Large class. *See* Direct Settlement Testimony of John Coffman at 3-4.

³³¹ Tr. 801:16-802:9 (Snook); Tr. 843:21-844:6 (Snook).

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costs.332 Yet, the service drop and customer facilities should be included when calculating a BSC under the basic customer method.³³³ They are fixed costs that APS incurs to serve a customer. In fact, as discussed during the hearing, Professor Bonbright's description of the basic customer method—the minimum starting point for calculating a BSC—includes the "drop wire," which APS refers to as the service drop. 334 Thus, a primary source (if not the primary source) of rate design theory supports the Settlement's calculation of BSCs.

Due to DG, among other industry changes, placing fixed costs in volumetric charges unduly risks cost shifts. 2.

SWEEP nonetheless argues that just because a cost is fixed does not mean it should be assigned and collected on an individual customer basis. While APS generally supports aligning fixed and variable costs, APS recognizes the policy consideration underlying SWEEP's assertion; APS's calculation of fixed costs totals \$28 per month, but just as SWEEP would not include all fixed costs in the BSC, APS only proposed a BSC of \$24 for certain rates in its initial application. Perhaps more importantly, the Settlement BSCs are far lower than \$28 or even \$24 a month and the Settlement would reduce BSCs for the majority of APS customers. Thus, the Settlement supports, and even furthers, SWEEP's position that fixed costs do not necessarily warrant fixed recovery.

Another critical issue related to fixed cost recovery and rate design is the cost shift, a topic overlooked by SWEEP. Throughout the history of electric utility rate design, the nature of customer usage provided more flexibility when determining which costs were collected through a customer charge and which costs were collected through a volumetric charge. But distributed generation, and other significant transformations to customer usage, changed all of that. With distributed generation, customers are able to self-supply a portion of their volumetric needs. But they do not permit a utility to avoid

³³² Tr. 1153:8-11 (Schlegel).

³³³ Tr. 801:16-802:9 (Snook); Tr. 843:21–844:6 (Snook). ³³⁴ Tr. 850:8-851:2 (Snook).

fixed costs. This dynamic limits the flexibility previously available when making decisions about the nature and size of basic service charges.

Aggressively small basic service charges, such as those urged by SWEEP, increase the magnitude of costs that DG shifts to customers without DG. In this rate case, the residential rate increase is significantly higher than the average increase—4.54% for residential customers compared to an average bill impact of 3.28%—because of distributed generation.³³⁵ This higher rate increase does not result from the Settlement per se, but from the underlying rate-design caused cost shift that the Settlement Agreement begins to moderate; APS supports the Settlement as an appropriate balance of competing policy considerations. Nonetheless, the Settlement makes clear that relying too heavily on a volumetric charge to collect fixed costs heightens the consequences of the cost shift for customers, a cost shift that is spread to all customer segments, including limited income customers. APS believes that the question of how to align fixed costs with fixed charges should be considered carefully, and that the risk of imposing a cost shift on all customers be included in that consideration.

XI. APS SUPPORTS STAFF'S FUEL AND POWER PURCHASE PROCUREMENT AUDIT RECOMMENDATIONS, WITH TWO PROPOSED CHANGES AGREED TO BY STAFF

ACC Staff consultant Dennis J. Schumaker audited APS's fuel and purchase power activities as required by the Commission in APS's last general rate case.³³⁶ Staff witness Schumaker testified that the audit "did not identify any significant areas of concern in either the management activities or financial activities review of APS's fuel and purchased power activities."³³⁷ He further testified that he did not identify "any significant areas of concern regarding the plan for administering the PSA mechanism."³³⁸ Staff witness Schumaker made six recommended findings primarily

³³⁵ See Lockwood Settlement Direct Testimony at 4; Miessner Direct Testimony at 12; Lockwood Direct Testimony at 4.

³³⁶ See Decision No. 73183.

³³⁷ See Schumaker Fuel Audit Direct Testimony at 2.

³³⁸ Id

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related to improving documentation of certain processes related to fuel and power procurement. APS supports these recommendations with two proposed changes.

First, Recommendation No. III-2 suggests that APS conduct an audit of its PSA filings in the next twelve months. APS witness Ms. Lockwood recommended that this time frame be extended to eighteen months in order to allow APS sufficient time to fully implement the other recommendations of Staff witness Schumaker before auditing the PSA filings. 339 Staff witness Schumaker testified that this suggested modification made sense, and he accepted APS's proposed change. 340

Second, Recommendation No. III-5 proposed that APS's systems be reconfigured to disallow transactions when a counterparty is financially overexposed. APS opposed this recommendation.³⁴¹ APS witness Ms. Lockwood testified that this recommendation could result in unintended negative consequences to reliability and explained that APS has other mechanisms in place to address this concern.³⁴² Staff witness Schumaker testified that he did not have a problem removing this recommendation from his report, noting that APS had built into its system other ways to flag potential credit and over exposure problems.³⁴³

In sum, Staff witness Schumaker testified that he agreed with APS's proposed modifications to Staff's recommendations. Accordingly, APS requests that the Hearing Officer recommend approval of Staff witness Schumaker's recommendations in the fuel and purchase power audit as modified by APS.

XII. **CONCLUSION**

The Settlement Agreement would result in just and reasonable rates, and adopting it is in the public interest. Instead of litigating their vast differences, the evidence demonstrates that a large number of parties, representing widely-diverse perspectives,

³³⁹ See Lockwood Settlement Rebuttal Testimony at 10.

³⁴⁰ Tr. 735:14-736:2 (Schumaker). ³⁴¹ See Lockwood Settlement Rebuttal Testimony at 11.

³⁴³ Tr. 737:6-11 (Schumaker).

came together in a transparent and fair process to collaborate on resolving difficult policy issues. As a result of significant, interrelated concessions from all parties on numerous issues, the parties were able to agree upon a moderate rate increase; a slow, but tangible beginning for rate modernization; a carefully-crafted set of deferrals that preserve financial stability for the Company and rate stability for customers; more rate options for residential and commercial customers; and, a truce on solar-related disputes that could enhance regulatory stability and open the door for more collaboration and less litigation.

Substantial evidence supported this compromise resolution. Nonetheless, some parties would not settle. Even though the Settlement Agreement reflects a middle ground on basic service charges, AMI opt-out charges, rate transition, and time-of-use periods, among other issues, these non-settling parties were unwilling to move off their litigation positions and accept an outcome that reflected all parties' perspectives. It is beyond doubt that doing so is entirely within each party's discretion. But APS is confident that the record supports the Settlement Agreement, and that the compromise outcome proposed by the Settlement reflects the best policy for APS's customers and Arizona as a whole.

Finally, EFCA's proposal to create an optional rate for E-32 L customers should be rejected. This optional rate would remove all of the protections in the E-32 L rate. These protections, however, are cost based, and protect E-32 L customers from the inevitable cost shift that would occur if a subset of E-32 L customers reduced their demand beyond the cost savings they bring to the system. Perhaps most importantly, removing the protections would create another NEM-like cost shift. Just as Arizona has begun unwinding NEM, EFCA would reintroduce the inevitable customer inequity and regulatory battles that come with burying massive incentives in rate design.

Instead of burying incentives in rate design, the better course is to design costbased rates and layer transparent incentives on top of those rates. Doing so permits the Commission to control the amount of incentives provided, target those incentives to

1 achieve specific goals, and reduce the incentives as costs go down. If APS customers are 2 to incentivize battery storage, they are entitled to know exactly how much they are 3 spending to do so, and shouldn't have to pay any more than they absolutely must to 4 jump-start a new technology. APS's battery-incentive proposal would provide customers 5 that transparency and control and should be adopted in place of EFCA's proposal. 6 7 RESPECTFULLY SUBMITTED this 17th day of May 2017. 8 By: 9 Thomas A. Loquvam Thomas L. Mumaw 10 Melissa M. Krueger 11 Amanda Ho Attorneys for Arizona Public Service Company 12 13 ORIGINAL and fifteen (15) copies of the foregoing filed this 17th day of 14 May 2017, with: 15 Docket Control 16 ARIZONA CORPORATION COMMISSION 1200 West Washington Street 17 Phoenix, Arizona 85007 18 19 COPY of the foregoing emailed / mailed this 17th day of May 2017, to: 20 21 Albert Acken Ann-Marie Anderson Ryley Carlock & Applewhite Wright Welker & Paoule, PLC 22 10429 South 51st Street., Suite 285 One N. Central Ave., Ste 1200 Phoenix, AZ 85004-4417 Phoenix, AZ 85009 23 24 **Brendon Baatz** Stephen Baron Manager Consultant 25 ACEEE J. Kennedy & Associates 529 14th Street N.W., Suite 600 570 Colonial Park Drive, Suite 305 26 Washington, DC 20045-1000 Roswell, GA 30075 27

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